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Moult and ageing of Falcated Ducks

Honey-buzzards in the New Forest

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Front-cover photograph: Male Bullfinch *Pyrrhula pyrrhula*, Dumfries & Galloway, November 2011
Edmund Fellowes

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Regular features

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.

Madeiran Storm-petrel off Scilly: new to Britain

Robert L. Flood

Abstract A Madeiran Storm-petrel *Oceanodroma castro* was seen and photographed from a boat approximately 12–14 km southeast of Scilly on 28th July 2007. The bird made two close passes to the boat, some 50 minutes apart, making it possible to note the key identification features and to reconfirm these during the second sighting. A record photograph was obtained. A previously accepted record of Madeiran Storm-petrel, one found dead at Milford, Hampshire, in November 1911, was removed from the British List in 2008 and thus the Scilly bird becomes the first accepted record for Britain.

On the evening of 28th July 2007, I was on board MV *Sapphire*, south of the Isles of Scilly, together with four other birders – Alan Hannington and John Higginson from Scilly, Tony James from Newcastle, and Ken Adelsten Jensen from Norway – and skipper Joe Pender, who also has an interest in seabirds. The southwesterly wind had increased after we left the harbour, from a force 3 to a force 5. There was 100% cloud cover and earlier rain had all but ceased, although there was some sea spray that was a problem when looking into the wind. The light and other observation conditions were good looking downwind. When we were approximately 12 km southeast of St Mary's quay we began drifting and chumming, and were soon watching European Storm-petrels *Hydrobates pelagicus* heading in from downwind, which we carefully checked in the hope of finding a Wilson's Storm-petrel *Oceanites oceanicus*.

At about 18.55 hrs, I was located on the port side of the cabin, looking downwind. Through binoculars I saw a long-winged, black-brown storm-petrel rise over the crest of a wave, heading directly towards the boat. Immediate impressions said it was not a Wilson's. Compared with Wilson's it was larger, the arm relative to the hand was longer, and the wings were not flattened but were held in a shallow M-shape. Neither did those first impressions resonate with Leach's Storm-petrel *Oceanodroma leucorhoa*, in particular because the jizz and flight behaviour of the bird were steady and methodical rather than tern-like. The possibility of Madeiran Storm-petrel *O. castro* flashed into my mind. For those reasons, and for only the second time in 12 years of pelagics out of Scilly, I yelled to the other birders: 'Get on this storm-petrel!'

Despite those very early impressions, my next stage of thinking, during the following ten seconds or so, was like trying to force a square peg into a round hole, trying to make this storm-petrel a Wilson's – perhaps because a Madeiran off Scilly was just too incredible to believe. Moreover, in those early stages, there were some similarities between a Wilson's and our bird, such as a relatively straight trailing edge to the wing and purposeful travelling flight behaviour. And, of course, we were expecting to see Wilson's! Conversely, Leach's was never a serious candidate.

When it was about 30 m from the boat, this mystery storm-petrel banked to its right and began methodically quartering the sea surface. At this distance I could see an upper-wing-covert bar that did not reach the leading edge (in Leach's it does reach the leading edge) and was not as pronounced as on a typical Leach's. The white rump was broader than it was long (that of Leach's is normally longer than it is broad), extending to the lateral undertail-coverts (unlike Leach's), and was still clearly visible when the bird banked

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away showing its underside (in similar circumstances the white rump on Leach's is then hard to see). Therefore, the 'band rump' was seemingly always visible as the storm-petrel manoeuvred around, a feature not apparent on Leach's. The tail of our bird was short and the rear end looked particularly short relative to the wingspan (in comparison, the rear end of Wilson's looks relatively long, even when the feet are retracted and the toe projection thus eliminated). There was no toe projection beyond the end of the tail (Wilson's typically has obviously projecting toes).

The bird was approaching close to the stern and I expected it to pass the stern and head into the slick off the starboard side and feed. Instead, it banked to its left and flew parallel to the port side, some 12 m from the boat. We had front-row seats for this performance and the differences from Leach's and Wilson's quickly became apparent: the relatively thick bill (thinner in Leach's and Wilson's); the chunky body (relatively slim in Leach's and Wilson's); the leading edge of the wing was mildly angular at the carpal joint and the trailing edge was gently angular (both sharply angular in Leach's, and the trailing edge in Wilson's is all but straight); the arm was broad (narrow in Leach's); and the wing-tips were moderately blunt (very pointed in Leach's and Wilson's). In addition, the underwing was evenly black-brown, similar to the body. These plumage features, among many other plumage and structural features, also eliminated both species of *Fregetta* storm-petrel – White-bellied *Fregetta grallaria* and Black-bellied *F. tropica* – which both show largely white underwing-coverts and belly (normally with a dark central stripe in Black-bellied). The European Storm-petrels present were simply dwarfed alongside our bird as it continued by.

The jizz was consistently methodical, almost predictable: not buoyant and sometimes unpredictable as Leach's; not hirundine-like as with Wilson's; and not like a small bat as with European. It rose up to 3 m above the sea surface on several occasions (this is very rare in Wilson's and European, which almost always keep within a metre of the sea surface).

By now I was trying to accept that this storm-petrel had to be a Madeiran, but could it really be? Having noted all relevant structural and plumage features, flight behaviour, and briefly considered other possible storm-petrel species, I was now confident enough to call it: 'It's a Madeiran!'. The bird continued on, past the bow, and then, banking to its left, moved away from the boat and was lost to sight. The whole event lasted about a minute. The precise location was 049°51.741'N 006°08.781'W.

When I first saw the Madeiran, my instant reaction was: 'This is really different!' I shouted so loudly that even Joe Pender, fishing off the stern, heard me through the wind and turned around to see the bird fly by. However, after I yelled out, nobody uttered a word, and this, coupled with incredulity, slight panic, and some resonance with the jizz of Wilson's (see above), led me to doubt my first impression and, after a short while, to say questioningly: 'It must be a large Wilson's?' John Higginson replied that it was too large, and this helped to calm my mind a little, but not totally. Experience in many oceans alongside the world's seabird experts reminded me that even the best have been tricked by size illusion – Madeiran for European Storm-petrel is one example that comes to mind (also see Flood & Fisher 2011, pp. 25–26) – and to begin with there was no opportunity for comparison with local storm-petrels. What's more, Wilson's vary significantly in size, and the jizz of a small Wilson's is quite different from that of the largest. Flight actions of one especially large Wilson's, seen well and photographed off Scilly in 2005, set it apart from others and will be remembered by birders on board at the time (see plates 3 & 4). John Higginson also noted the lack of toe projection, but here again I was aware that Wilson's can retract their legs thus eliminating toe projection, 'when it can look remarkably like band-rumped [Madeiran]' (Killian Mullarney in Robb *et al.* 2008). In 2000, in the early years of Scilly pelagics, Kris Webb, Ashley Fisher and I watched a Wilson's off Scilly with legs retracted, which caused considerable confusion in the identification. Put simply, a lack of toe projection does not eliminate Wilson's. It was the *combination* of key characteristics of flight behaviour, plumage aspect, and structure, described above, that allowed

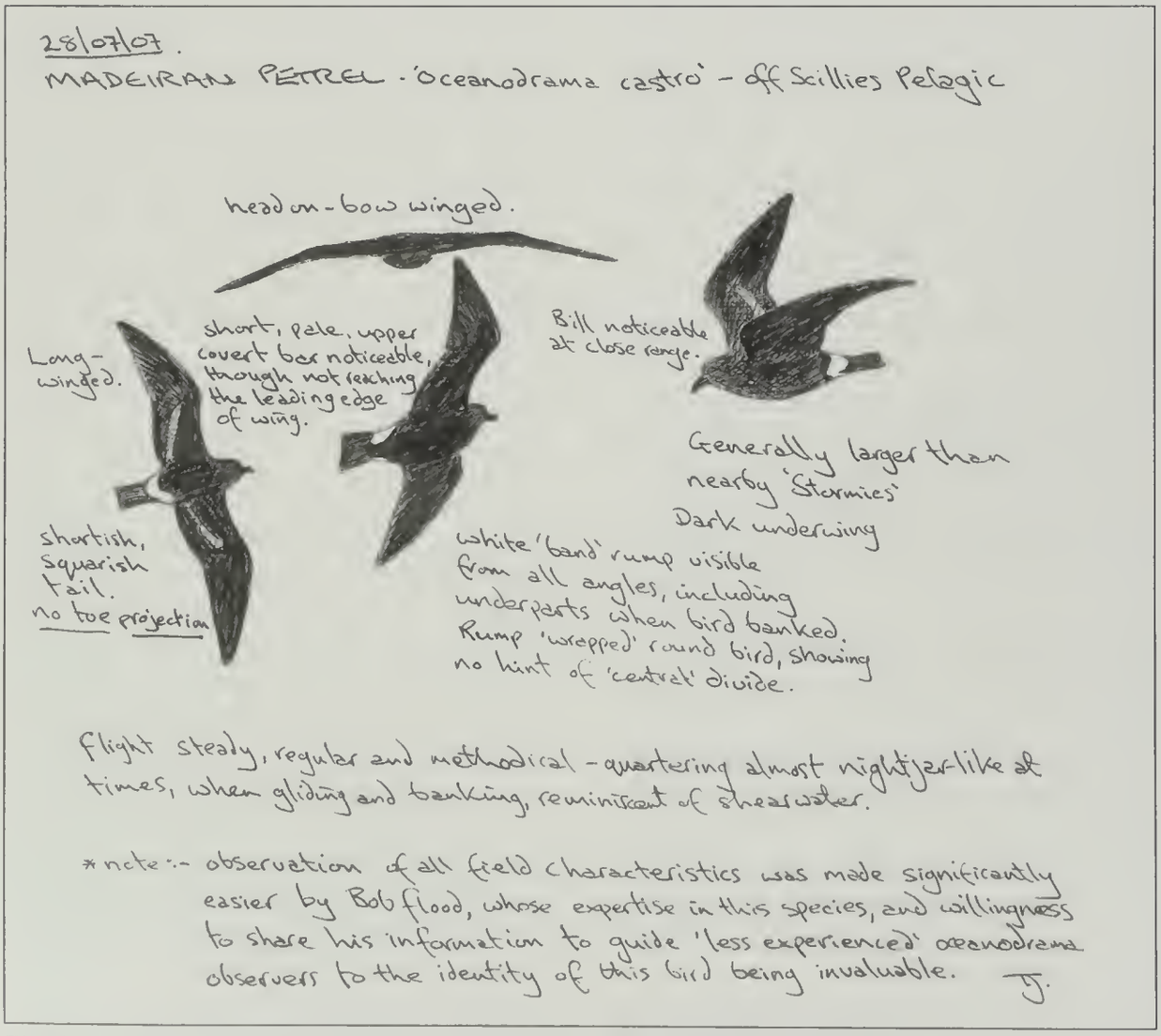
Joe Pender

1. Madeiran Storm-petrel *Oceanodroma castro*, 27th July 2007, c. 12 km southeast of St Mary's quay, Scilly. The combination of structure and visible plumage aspect shown in this image are unique to Madeiran. Note the long outstretched wings, considerable length of the arm relative to the hand, that the leading edge is mildly angular at the carpal joint and the trailing edge gently angular, the wing-tips are moderately blunt, the tail is short relative to the wingspan, the 'band rump' extends much deeper on the underside than in Leach's, and the underwings and body are all dark. Also note that the Madeiran is about three metres above the sea surface. This record shot clearly shows several key field characteristics that in combination are diagnostic of Madeiran Storm-petrel.

identification to click into place.

In reality, even though it was such a momentous bird, the identification was clear-cut and categorical, given the close pass and excellent views with all key field identification features seen, and so celebrations began immediately. However, we did not have an experienced photographer on board and none of us amateur photographers had a camera at hand, instead keeping them bagged because of the sea spray. The lack of photographic evidence was niggling at the back of my mind. Half an hour or so later, the revelry had passed its peak and we had mostly fallen quiet as the facts had begun to sink in.

And then, at about 19.45 hrs, I was amazed to see the Madeiran approaching the boat for a second time. We were treated to an



Tony James

Fig. 1. Madeiran Storm-petrel *Oceanodroma castro*, 28th July 2007, off Scilly.

almost carbon-copy performance and an opportunity to once again run through all key field-identification features. This time I yelled to the skipper, Joe Pender, to take photos and he had time to run into the cabin, turn on his all-in-one camera, and take a couple of photographs (Joe now has top-of-the-range equipment...). One snatched record shot shows enough of the features mentioned above for the bird to be identifiable as a Madeiran Storm-petrel (plate 1). The exact location of the second sighting was 049°51.590'N 006°07.422'W, c. 13.5 km southeast of St Mary's quay.

The Scilly Madeiran was clad in what looked like very fresh plumage, and was presumably a recently fledged juvenile or freshly moulted immature or adult, and was certainly not in wing moult. Different populations of Madeiran Storm-petrel in the Atlantic breed at different times of the year, some of them 'time-sharing' burrows, with each population having non-overlapping breeding and dispersal periods, and hence different moult timings. Unfortunately, the state of plumage of the Scilly Madeiran does not obviously point to the age or origin of the bird.

It was extremely helpful though quite astonishing that this sighting occurred just two weeks after publication of the article in *BB* that deals with identification of 'black-and-white' storm-petrels of the North Atlantic (Flood & Thomas 2007). Preliminary details of this sighting appeared in Flood (2007).

Description

Jizz Like a European Nightjar *Caprimulgus europaeus*. Chunky-bodied and fairly heavy-billed, black-brown, flight methodical and predictable – overall rather plain.

Body length and wingspan Medium-sized, appearing much larger than accompanying European Storm-petrels – Alan Hannington commented at the time that: 'It's like a small shearwater.' Taking into account size illusion among storm-petrel species at sea, I would estimate the body length and wingspan ratios

David Shoch

David Shoch

2. Madeiran Storm-petrels *Oceanodroma castro*, Hatteras, North Carolina, USA, 27th May 2009. The wing pose shown here is typical of travelling Madeirans, with wings held outstretched. Both the leading edge and the trailing edge are moderately angular, and the wing-tips are bluntish. The upperwing-covert bars are greyish-brown and fairly conspicuous, but they are not long and teardrop-shaped and do not reach the leading edge, as on Leach's. The 'rump patch' is narrow with the longer uppertail-coverts tipped dark. The thigh patch is fairly wide and extends farther onto the underside than on Leach's. The tail is fairly long, square-ended, and the corners are slightly rounded.

for European Storm-petrel versus the Scilly Madeiran Storm-petrel to be in the region of the (known) ratio of 1:1.4.

Structure This bird was not in moult, thus there were no moult-related issues that affected structure. *Wing shape* Long, broad arms, blunt-ended wing-tips, most of the time held straight out so that the leading and trailing edges were only moderately angular at the carpal joint. *Head-on profile* Slightly bowed in a shallow 'M', the arm of medium length, the hand long. *Tail Shape* Shallow fork/notch, but appeared square-ended when fanned as the bird manoeuvred. *Toe projection* None. *Body build* Chunky. *Bill shape and proportions* Relatively thick, bulky, and quite heavily hooked.

Plumage *General colour* Black-brown and overall rather plain-looking. *Upperwing-covert bars* At range, quite uniformly dark upperwings with fairly indistinct covert bars. Closer views showed a dull bar formed by the greater coverts that stopped short of the leading edge. *Underwing-coverts and axillary feathers* Uniformly black-brown. *White rump patch* Narrow, rectangular, broader than long, extended to lateral undertail-coverts and rear flanks, seemingly always visible. *Belly* All dark. *Bill* Black. *Eyes* Dark. *Legs* Not seen.

Flight behaviour In travelling flight, steady and buoyant with short runs of shallow wingbeats, low banking turns, small-shearwater-like glides, occasionally rising to 3 m above the sea surface in these manoeuvres. When searching for food, the bird weaved a regular zigzag route and quartered areas of the sea surface.

Elimination of other storm-petrel species

European Storm-petrel European is much smaller and those present on the evening of 28th July were dwarfed by the Madeiran. European Storm-petrel has a weak and fluttery bat-like flight, enhanced by the short arm and hand and by blunt-ended wings that are always strongly angular at the carpal joint on both the leading and the trailing edge. It shows a compact, short body and a short, gently rounded tail; a pale upperwing 'pencil line' bar, and white underwing-covert panels. The bill of European is short, slim, and only slightly hooked.

Wilson's Storm-petrel Wilson's is smaller than Madeiran (but see comments on judging size – above) and, indeed, we had seen a reasonable number of them off Scilly in the preceeding two months, so the larger size of our Madeiran when it first appeared was immediately apparent. The flight behaviour and jizz of Wilson's is well characterised by the 'hirundine' simile, quite different from the methodical nightjar-like flight of Madeiran. Structurally, Wilson's has an evenly proportioned body with long and spindly legs that typically project beyond the tail in travelling flight. The wingspan of the Scilly Madeiran was visibly longer than that of a Wilson's (based on those recent observations), which has shorter wings that are more angular at the carpal joints on the leading edge and straighter on the trailing edge. The head-on profile of Wilson's shows the wings held straight and stiff, with a short arm and medium-length hand. The tail is of medium length, slightly concave with rounded corners, and the rear end looks quite long relative to the wingspan, unlike the rear end of the Scilly Madeiran, which looked particularly short. Wilson's typically shows obvious and broad upperwing-covert bars that begin short of the leading edge and extend to the body, and which are much more obvious than the covert bars on the Scilly Madeiran. The bill is of medium length and only slightly hooked; the Scilly Madeiran had a relatively bulky bill that was heavily hooked.

Leach's Storm-petrel Leach's flies with buoyant and graceful, deep, languid wingbeats, and may make unpredictable changes in flight speed and direction. The wings are long, quite narrow, show decidedly pointed wing-tips, and the leading and trailing edges are markedly angular. In comparison, the Scilly Madeiran was longer-winged than Leach's, this impression being especially so when the wings were held outstretched, so that the leading and trailing edges appeared only moderately angular, and the wing-tips

Bryan Thomas

3. Wilson's Storm-petrel *Oceanites oceanicus*, 13th August 2005, Isles of Scilly. A large Wilson's, with a protruding head and neck, long body, long wings, long caudal projection, and a long toe projection.

Bryan Thomas

4. Wilson's Storm-petrel *Oceanites oceanicus*, 19th March 2006, Grytviken, South Georgia. There is observable variation in size in Wilson's (clinal or subspecific) from short dumpy birds to longer slimmer birds. Consequently, flight behaviour is quite fluttery in small birds, stronger and swifter in large birds. Plates 3 and 4 respectively show a large and a small Wilson's (notwithstanding a different angle of photograph) that give the feel/jizz of two quite different storm-petrels.

Fig. 2. Madeiran Storm-petrels *Oceanodroma castro* breed in the northeast Atlantic (orange dots; in summer, or winter, or both), but rarely move north to western Europe, where they are an extreme vagrant (blue dots). Wynn & Shaw (2009) reported four at sea in late August, notably north of the breeding grounds: two at 45°14'N 12°12'W, and two at 46°25'N 11°16'W (the latter about 650 km southwest of Scilly). Brereton *et al.* (2003) reported one in the Bay of Biscay. There are 21 extralimital records in Europe (including Fennoscandia) to the end of 2010, as follows: Finland (one wrecked January), France (five – one at sea August, one at sea September, three in October with two at sea and one wrecked), Ireland (one October hit lighthouse and died), Spain (12 – one wrecked January, one wrecked February, one at sea June, two ringed July, four at sea August, one wrecked October, two wrecked November), Switzerland (one wrecked December) and the UK (one at sea July) (Flood & Thomas 2007 updated).

were blunt. The Madeiran looked longer-winged than a Leach's because its wings were mainly held outstretched. In comparison with Madeiran, Leach's tends to hold its wings swept back, the body is rather long and slim, the tail is deeply forked and scooped, and the bill is relatively long and slender, and appears only slightly hooked. The upper-wing-covert bars of Leach's are normally striking, stretching across the wing-coverts to the leading edge. Leach's shows a white rump patch that is dull and not gleaming white, barely extends to the undertail-coverts and rear flanks, is longer than it is broad, and is hard to observe at sea, especially when the bird banks away.

Black-bellied and White-bellied Storm-petrels

These are fat and compact birds, fly like an exhibition windsurfer and tend to skim close to the sea surface. The wing shape of *Fregetta* storm-petrels is broad with a short arm, but with strongly curved leading and straight trailing edges that taper to pointed wing-tips. When they are seen head-on, their profile shows slightly arched wings held in a shallow-M, with a short arm and long hand. The *Fregetta* tail shape is short and square-ended, and the bill shape is short, broad-based, and finely hooked. On both *Fregetta* species the upper-wing-covert bars are normally even less conspicuous than shown by Madeiran, and the underwings have obvious white covert panels. Both also show extensive amounts of white on the belly, and although the pattern varies, neither species ever shows an entirely dark belly as the Scilly Madeiran did.

Status on the British List

Madeiran Storm-petrel was formerly included in Category B of the British List based upon a bird said to have been found dead on the beach at Milford, Hampshire, on 19th November 1911. During its review of

this record, BOURC was unable to locate any published description of the bird and, as the specimen was untraceable, its identification was not verified. Moreover, there was no indication whether or not the bird, found dead on the beach, had actually died in British waters. Consequently, this record was deemed to be unacceptable and the species was removed from the British List in 2008 (BOU 2009).

As this was a potential first for Britain, the Scilly claim was assessed by BBRC and the file then forwarded to BOURC for review. Owing to the difficulties involved in assessing seabird records, this process took four years to complete, in part because of the extent of research required. However, in September 2011, the Scilly bird was accepted and Madeiran Storm-petrel was added to Category A of the British List.

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Editorial comment Adam Rowlands, Chairman of BBRC, commented: 'This has been one of the more complex records that BBRC members have had to consider. It was originally submitted by Bob Flood (RLF) in autumn 2007 and the initial BBRC circulation occurred between November 2007 and June 2008. The original file consisted of RLF's description, two photographs from Joe Pender, and field notes and sketches from Tony James.

'After the circulation had begun we realised that corroboration of the circumstances and identification of this potential 'first' would be essential. Submissions were sought (and obtained) from other observers on the boat. There were some discrepancies about the circumstances of the find but the key identification details remained consistent. At about the same time, BOURC began a review of the only other British record and it was quickly apparent that the Scilly record would have to be considered as the first for Britain. During the circulation, Killian Mullarney was approached and asked to comment on the best photograph and the sketches, given his significant field experience with birds in the "Madeiran Storm-petrel complex" for the production of Robb *et al.* (2008), and he provided a positive endorsement of the record.

'Members were asked at the end of the circulation period to consider their votes and comments in the context of all the additional information that had arisen during the assessment process and, despite some reservations relating to the circumstances of the find, there was agreement on the identification and the record was accepted unanimously by BBRC and passed to BOURC for consideration in late summer 2008.

'However, in the light of new evidence (about the identification of Madeiran Storm-petrel) which came about during the assessment by BOURC, the file was returned to BBRC in early 2009 for reconsideration, an unusual step but in this case wholly justified. By this stage the file contained a significant volume of information and had grown rather complex and challenging to assimilate and review. As a consequence, the recirculation was rather protracted, lasting from February 2009 to April 2010. However, after all the material presented by BOURC was considered, the conclusion of BBRC members remained the same. The record was accepted unanimously and returned to BOURC for consideration.

'Records of fly-by seabirds are some of the most difficult to assess and the Committee requires particularly convincing evidence to be sure that a genuine mistake has not been made. The

Committee can empathise with the difficulties confronting observers compiling descriptions of a major rarity seen only in flight and in the challenging circumstances of a small boat in a rolling sea. Nonetheless, it assists the assessment process no end if observers endeavour to provide a clear recollection of events, avoiding the uncertainty that inevitably creeps in if details appear to be in any way contradictory. In this case the discrepancies were ironed out and the record accepted unanimously by BBRC in both its initial and final circulations.'

Martin Collinson, Chairman of BOURC, commented: 'When BBRC has accepted a potential first, it is relatively unusual for BOURC to decide that the identification is not proven. This is effectively what happened to this record on its first circulation, which is one of the reasons for the four-year delay before its final acceptance, and deserves some explanation. Relating to the descriptions, some members questioned whether this level of structural and plumage detail could be observed accurately on a moving bird in a rising force 5 wind, whether it could be definitively stated that the bird was not in moult, and whether the second sighting could automatically be assumed to relate to the same individual or species as the first. However, these issues had already been considered by BBRC. What ultimately led to the file being returned to BBRC on first assessment were two new pieces of evidence. The first related to the record shot (plate 1). There were in fact two photographs submitted, apparently showing the bird flying away at speed, the better of which has been reproduced here. BOURC was able to show that a Leach's Storm-petrel photographed at a similar angle, range and resolution would appear structurally similar to the bird in plate 1, could possibly show an apparently unforked tail and still have a visible white rump. While the submitted photograph was, therefore, undoubtedly consistent with Madeiran Storm-petrel, it was considered far from diagnostic. The second line of evidence was that BOURC members became aware of new levels of plumage and structural variation in Leach's Storm-petrel. It was shown that some Leach's Storm-petrels are in tail, but not wing, moult in July, and this could lead to an individual showing a reduced tail fork. The presence of a short, squarer tail also makes individuals appear long-winged. Examples of Leach's Storm-petrels with proven square 'band' rumps and unbroken white rumps also came to light. Some of these data were subsequently formally documented in Miles (2010). Enough BOURC members were sufficiently concerned that the possibility of an aberrant or unusual Leach's Storm-petrel had not been sufficiently critically assessed to determine the identification as not proven, and it went back to BBRC with this information, which subsequently endorsed the record.

'On the second circulation, BOURC concurred with this decision. The conclusion from Miles (2010) was that only about 1 in 2,000 Leach's would show a combination of all-white, band-shaped rump, short squarish tail and apparently long wings, and even this would not explain the presence of a bird off Scilly in July, where Leach's Storm-petrels are virtually unprecedented, nor would it explain the other structural and flight-pattern characteristics observed and described accurately by the observers, one of whom is an acknowledged expert on identification of storm-petrels at sea. It can perhaps be stated that the level of photographic evidence for this record compares unfavourably with that available for two other seabird 'firsts' in previous years, Fea's Petrel *Pterodroma feae* and 'Scopoli's Shearwater' *Calonectris diomedea diomedea*, but there seems to be no further doubt that the observers saw and correctly identified a Madeiran Storm-petrel. The subspecies cannot be ascertained, and in light of potential future splits, it is possible that Madeiran Storm-petrel's residency in Category A is going to be short-lived.'

From the Rarities Committee's files

Moult and ageing of male Falcated Ducks in autumn

John P. Martin and Martin Garner

Alan Harris

Abstract A male Falcated Duck *Anas falcata* in Devon in winter 2006/07 was a subject of much debate in terms of the bird's age. Research on the subject involving the study of captive birds and museum specimens concluded that the Devon bird was a first-winter male. The wider results of that research, concerning the moult and ageing of this species in autumn, are presented in this paper.

Introduction

A male Falcated Duck *Anas falcata* frequented Bowling Green Marsh and nearby sites on the Exe Estuary, in Devon, from at least 18th November 2006 to 11th January 2007. This attractive duck is kept widely in captivity yet the species is also highly migratory in the wild and it is entirely plausible that genuine vagrants could reach western Europe. Although by no means conclusive, an immature would generally be considered as a more persuasive candidate for wild vagrancy than an adult, so a good deal of attention was given to establishing the bird's age.

Initially, the Devon bird was thought to be a first-winter (Langman 2006). However, after comparing photographs of this individual with specimens held at the Natural History Museum (NHM), Tring, as part of the BBRC and BOURC assessment process, MG and Ian Lewington (IL) concluded that it showed characters more consistent with an adult. Two 'first-winter' specimens of Falcated Duck at NHM, Tring, collected in the wild (in China and Japan) in October and December, were still in virtually full juvenile plumage (all the juvenile tertials and tail feathers were retained, for example) at a time when the Devon bird was much more advanced towards an adult-like plumage. In particular, the Devon bird seemed to show two ages of tail feather, neither of which displayed the typical pattern shown by juvenile ducks – a V-shaped notch at the feather tip and a protruding shaft; furthermore, the tertial pattern was also thought to be a better fit for an eclipse adult. These findings were summarised by MG in the BBRC Report for 2006

(*Brit. Birds* 100: 751–752), which concluded that the bird was probably an adult, but also highlighted the need for further research into ageing and moult of this species. MG and JPM collaborated in that follow-up research, which is now presented here.

Moult strategy in ducks and terminology

The moults of wildfowl are complex and poorly understood (Howell 2010), which is perhaps surprising considering that various species are of considerable economic importance and that many are kept in captivity. The following summary is a simplification, in part because the partitioning of moult periods is a convenience that allows patterns to be discerned. The reality is often more complicated.

The best way of understanding the moult cycle is to start with a juvenile bird with its first set of feathers. Juvenile dabbling ducks have a partial moult, involving the head and body feathers but not the primaries and secondaries, usually between about September and December of their first year. The resulting plumage, which we would conventionally describe as 'first-winter', looks essentially similar to that of adults at the same time of year.

After breeding, adult (including second-calendar-year) male dabbling ducks moult into a drab eclipse plumage and look superficially similar to females and juveniles. In late summer, they begin their complete autumn moult by shedding the primaries and secondaries simultaneously, which renders the bird flightless for a few weeks. This is followed by replacement of head and body feathers, usually starting in September and finishing by December, by which time males have the colourful plumage in which they court and breed during late winter and spring. For simplicity, we have called this 'adult winter' plumage in this paper, even though it also represents the birds' breeding plumage.

Falcated Ducks at Slimbridge: initial findings and further research

To gain a better understanding of the appearance of adult and juvenile Falcated Ducks, and to learn more about the timing of their moults, JPM studied the birds held in the collection at Slimbridge WWT, Gloucestershire. In 2007, three juvenile male and three adult male Falcated Ducks, together with a number of females, were studied and photographed in September and again in November.

At least one of the Slimbridge juveniles, a female, was apparently replacing a tail feather in mid September 2007 (plate 6), but by early November all the moulting juvenile drakes showed two generations of tail feathers, with the fresh, grey, second-generation inner feathers contrasting with the browner (worn) retained juvenile outer feathers (plate 8). However, the 'classic' juvenile tail-feather pattern (the V-shaped notch at the tip with protruding shaft) was not apparent on those juvenile feathers, even when viewed down to a few metres. Although this age-diagnostic pattern can be seen on juvenile Falcated Duck tail feathers in the museum specimens we examined, it seems that it is often effectively impossible to detect in the field. The key finding here was that some young males, with two generations of tail feathers, looked remarkably similar to the Devon bird in this respect.

Juvenile males in November also showed two generations of tertial feathers. The new feathers (fresher-looking, blackish-centred, with a greyish-white shaft streak and fringe) contrasted with the juvenile tertials, which were often worn, brown feathers with a simple narrow buff fringe (plate 7).

These observations demonstrated that some captive juvenile/first-winter male Falcated Ducks in autumn could be considerably more advanced than at least some NHM specimens of a similar age. It was also clear that the tertial and tail-feather patterns shown by the juvenile males at Slimbridge were in fact similar to those of the Devon Falcated Duck, which once again raised questions about the age of that bird.

Further research was clearly desirable, although we did not realise at the time just how long it was going to take. The study at Slimbridge was repeated in 2008 when, unfortunately for us, all three juveniles were females (though at least three adult males were also studied in autumn). These data were supplemented by MG's observations of moulting adult male Falcated Ducks at Martin Mere

WWT, Lancashire, in October 2008, although no young were raised there. These wildfowl collections were visited again in 2009 (when at least two more juvenile males were in the Slimbridge collection) and 2010.

The extent and timing of moult may vary somewhat between birds in captivity and those in the wild, although in most cases it is likely that overall patterns of moult sequence and feather replacement will not be affected significantly. One caveat is that the processes controlling plumage coloration are independent from those controlling moults (Howell *et al.* 2004; Pyle 2005; Howell 2010). Furthermore, one of the limitations of this study is that it involved a rather small sample of captive birds and further research is needed on the extent, timing and variation of moult in Falcated Ducks in the wild. For example, some ducks in eastern Asia, including Shoveler *A. clypeata* and Eurasian Wigeon *A. penelope*, appear to moult out of eclipse plumage up to four weeks later than their European counterparts (P. Kennerley *in litt.*). Once underway, moult occurs rapidly, so the appearance of an individual can change considerably within a surprisingly short period.

In addition to our observations of captive birds, 46 specimens of male Falcated Duck at NHM were examined by IL and JPM in 2010, and again by JPM and MG in 2011. Of these at least 13 are considered to be first-winter birds, based mainly on covert patterns (discussed below), and the great majority of these are much more advanced than the two largely juvenile-plumaged birds described earlier.

Plumages and moults of immature and adult birds

Approach to ageing in autumn

Once their respective moults are completed, young male Falcated Ducks in first-winter plumage look much like adult males in winter plumage. However, in autumn, when those moults are still in progress, the birds retain varying amounts of juvenile or eclipse plumage respectively. The key to ageing at this time is to identify consistent differences between the plumage of juvenile and eclipse (adult) males. If unmoulted feathers can be identified as either juvenile or eclipse, then the bird can be aged.

Juvenile

Juvenile Falcated Ducks of both sexes look similar, and have similarly patterned tertials: plain brown with a narrow pale buffish fringe. However, the tertials of young males tend to have a broader, greyer fringe to the base of the outer web than those of females. On average, juvenile male plumage is slightly darker and more richly coloured than that of females. The scapulars are simply patterned, being dark brown with a warmer and paler brown fringe. At this age, the sexes differ most obviously in the pattern of the lesser and median upperwing-coverts. In males these vary from plain grey with fine dark shaft streaks to duskier grey with a slightly paler fringe. The greater coverts are similar but are whiter in their distal third, sometimes with warm brown tips to the central feathers (plate 5). In females, the lesser and median coverts are a dusky mid grey with a strongly contrasting pale grey fringe, while the greater secondary coverts are duller grey than those of the males (plate 6).

Juveniles at Slimbridge in mid to late September showed only limited signs of moult. One of the females appeared to be growing a new central tail feather, which was shorter and greyer than the remainder, though this might have been an adventitious replacement. Six weeks later, all the juveniles were in moult and the appearance of the males had changed radically.

Juvenile to first-winter

By early November 2007, the three young drakes at Slimbridge had replaced much of their juvenile body plumage with second-generation feathers that closely resembled those of adult-winter males (plates 7 & 8). There was limited individual variation in the extent of moult, with much of the head, breast and belly, mantle and tail being replaced, while the lower scapulars, flank feathers and parts of the head and neck showed retained juvenile feathers. New tertials (blacker centres, a pale shaft streak and a greyish-white fringe to the outer web, widest at the base) were apparent, these appearing fresher than the already worn (brownish) juvenile tertials. The new central tail feathers were plain grey and contrasted with the brown and narrowly pale-fringed

John P. Martin

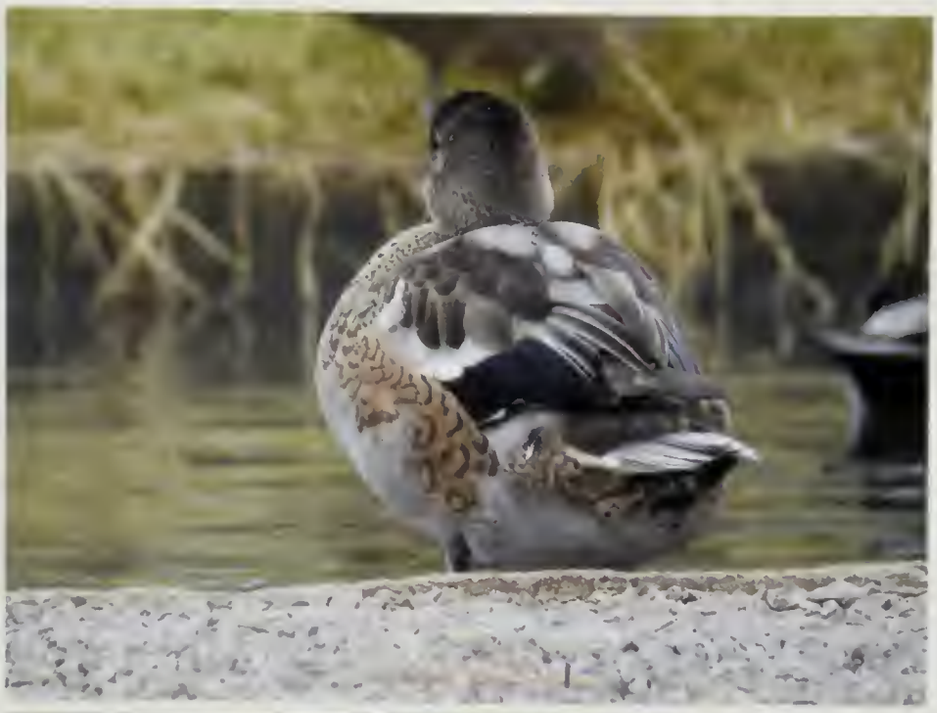
5. Juvenile male Falcated Duck *Anas falcata*, Slimbridge, Gloucestershire, 9th September 2007. Sexed by the plain grey smaller wing-coverts, in this individual not easy to distinguish from those of an adult male, although they are slightly duskier. This bird also shows brown tips to the central greater coverts. Note the simple scapular pattern of dark brown centres with a paler, rufous fringe.

John P. Martin

6. Juvenile female Falcated Duck *Anas falcata*, Slimbridge, Gloucestershire, 9th September 2007. Most readily sexed by the dusky grey smaller wing-coverts with contrasting whitish tips. Note that this bird is apparently growing at least one new (greyer) central tail feather.

John P. Martin

7. Juvenile moulting to first-winter male Falcated Duck *Anas falcata*, Slimbridge, Gloucestershire, 7th November 2007. New first-winter body feathers are now obvious but the simply patterned juvenile scapulars are retained. Note the contrast between new grey central tail feathers and browner juvenile outer feathers. Two ages of tertial are also evident, with the older, browner feathers already worn.



John P. Martin

8. Juvenile moulting to first-winter male Falcated Duck *Anas falcata*, Slimbridge, Gloucestershire, 7th November 2007. Note the clear contrast between the new grey adult-type central tail feathers and the retained juvenile outer tail feathers. Even in a good view of the tail like this, the classic worn juvenile tail-feather pattern, that of a V-shaped notch at the tip and protruding shaft, is not evident.

John P. Martin

9. Eclipse male Falcated Duck *Anas falcata*, Slimbridge, Gloucestershire, 21st September 2008. Note the vermiculated grey base to some of the scapulars. The pattern of the eclipse tertials is similar to the fresher tertials of the young bird in plate 7. Note also the all-grey tail.

John P. Martin

10. Eclipse adult male Falcated Duck *Anas falcata*, Slimbridge, Gloucestershire, 9th August 2009. The appearance of birds in eclipse varies; this bird shows some scapulars with buff subterminal bars as well as grey vermiculation. Such buff internal markings are described for juveniles in *BWP* but were not observed in known juveniles at Slimbridge. The tertials and tail are much like those of the bird in plate 9.

John P. Martin

11. Adult male Falcated Duck *Anas falcata* moulting to winter plumage, Slimbridge, Gloucestershire, 25th October 2009. This bird's moult is well advanced, though it retains some typical eclipse-patterned lower scapulars and a few flank feathers. All the tertials have been shed simultaneously. The adult male in the background (left) is in a similar plumage state but retains all its eclipse tertials.

John P. Martin

12. Adult male Falcated Duck *Anas falcata* moulting to winter plumage, Slimbridge, Gloucestershire, 29th October 2008. This bird is only a little more advanced than the one in plate 11 but its new set of partly grown adult-winter tertials is now visible. Note their contrasting black-and-white coloration, falcate shape and pointed tips.

Martin Garner

13. First-winter male Falcated Duck *Anas falcata*, Slimbridge, Gloucestershire, 30th December 2010. This bird is beginning to grow a set of falcate, adult-like tertials (arrowed), some two months or so after adults do so (the adult in plate 20 is at a similar stage of tertial growth in mid October). These could thus be this bird's third set of tertials since fledging: an unexpected moult strategy.

juvenile outer tail feathers. The contrast in colour was quite evident between the two generations of tail feather but, as described above, the classic juvenile pattern (V-shaped notch at the tip, with protruding shaft) was not apparent in the field, even with really close views. This is in effect a one-way character: if, in exceptional circumstances, it *is* possible to see it in the field, it confirms that the bird is a first-year; if it is not seen, the age is not certain.

Eclipse male

In September, adult males have already replaced their primaries and secondaries but otherwise retain their dowdy eclipse plumage (plates 9 & 10). In this plumage they differ from juveniles in several ways, which are important for ageing later in the autumn. The scapulars and mantle feathers are colder brown with paler buff edgings, the latter lacking the rich chestnut hues of fresh juvenile scapular fringes. Some adult scapulars, most consistently the smaller leading feathers from the lower rows, have a distinctive pattern. They are vermiculated with grey at the base and show a plain brown subterminal area and pale fringe (juvenile scapulars are plain dark brown with a paler, rufous-buff fringe). Some eclipse drakes show internal buff markings in some scapulars, a pattern not seen by us on any known juvenile males but described for some juvenile males in Cramp & Simmons (1977). Adult tail feathers are rather broad and more or less plain grey with pointed tips (juvenile tail feathers are somewhat narrower, and brown with a narrow pale fringe). Beware of adults moulting their tails, which can show contrast between clean grey new feathers and worn (duller) old feathers.

The eclipse tertials are typically grey with a blackish outer web showing a neat white-fringe, a whitish shaft streak, and often a more tapering, pointed tip than on the usually more round-tipped juvenile tertials. Note, however, that the tertials of some juvenile/ first-winter birds in autumn look extremely similar to the typical eclipse-male pattern, so the tertials are not an entirely reliable ageing feature in their own right. Note also that the angle of view can affect the perceived appearance of the same tertials.

The upperwing patterns of ducks are often useful for ageing. The median and lesser coverts of adult male Falcated Ducks are clean pale grey with a faint dark shaft streak. They differ from those of juveniles that show dusky coverts with paler fringes but less so from those of juveniles with plainer coverts. Differences are subtle and affected by light, so are not particularly easy to use as an ageing character in the field. Some adult males show narrow, contrasting cinnamon or rusty-brown tips to the middle few greater coverts. Cramp & Simmons (1977) stated that this colour is weak or absent in juveniles, although the juvenile in plate 5 has warm brown tips to these coverts and it is quite visible in some of the images of the Devon bird (e.g. plate 16). Some of the adults at Slimbridge showed these rusty tips to the middle greater coverts but others did not, indicating that this is probably not a helpful character for ageing in the field.

To summarise, the shape, pattern and colour of the scapulars, tail, wing-coverts and perhaps the tertials differ between juvenile and eclipse males, although there may be subtle differences in other feather tracts.

Eclipse male to adult-winter male

Like juveniles, eclipse males moult rapidly in the autumn. Retained juvenile or eclipse feathers provide the best method of ageing moulting males in autumn.

Most adult males at Slimbridge (n=10+) dropped their eclipse tertials simultaneously in October, although timing varied and some were retained well into the month. The shedding of the tertials occurred when the moult was well advanced, with usually just a few retained eclipse scapulars and flank feathers apparent (plate 11). In November, the juvenile males at Slimbridge had two ages of tertials and are not believed to drop them simultaneously, at least not at this time (we suspect they do so later in the winter, in some cases at least, in January). Birds with no tertials at this time of year are therefore likely to be adults. Interestingly, an adult male (of unknown origin) shot in Orkney in November 2000 had tertials 'so short that they would not have been visible in the field' (Bob McGowan pers. comm.), so this unusual moult strategy (perhaps unknown in

Rob Laughton

Rob Laughton

14 & 15. First-winter male Falcated Duck *Anas falcata*, Bowling Green Marsh, Devon, 30th November 2006. Plate 14 shows the dusky smaller wing-coverts with narrow paler fringe typical of juveniles.

any other dabbling duck) is not necessarily confined to captive birds. New adult-winter tertials grow quickly to replace the shed eclipse feathers and are more curved (falcate), have more pointed tips, and are black and white (plate 12). These long feathers inevitably take some time to reach their full length and splendour (even though, overall, the autumn moult occurs quite quickly).

Ageing the Devon bird

Following the statement about the Devon bird's age in the BBRC report for 2006, doubts began to emerge that prompted this further research (*Brit. Birds* 100: 751–752, 101: 575). Fortunately, the bird had been studied closely and photographed on numerous occasions throughout its prolonged stay (e.g. plates 14–18). Reference to these and a number of other images provide

Brian Heasman

16. First-winter male Falcated Duck *Anas falcata*, Bowling Green Marsh, Devon, November 2006. All the retained scapulars have the typical simple juvenile pattern – plain brown centres and warm fringes with no grey vermiculation. The tertials are compatible with those of either a juvenile or an eclipse male.

Mike Langman

17. First-winter male Falcated Duck *Anas falcata*, Bowling Green Marsh, Devon, 23rd November 2006. From this angle (cf. plate 16) the tertials are clearly round-tipped, and therefore not adult-winter feathers, but the apparent pattern varies subtly with the angle of view and it is difficult to distinguish them from eclipse adult feathers (cf. plate 19).

Paul Hackett

18. First-winter male Falcated Duck *Anas falcata*, Bowling Green Marsh, Devon, November 2006. The browner juvenile outermost tail feather on the bird's right-hand side contrasts with greyer, second-generation feathers. The juvenile structure of a notched tip and protruding shaft is not visible, even in this instructive photograph.

several clues to why we now believe that it was, indeed, a first-winter.

Main features

Pattern of the lower row of retained juvenile scapulars

The lower scapulars are dark brown with a simple pale fringe, which is typical of juveniles. If the bird had been an adult, at least some retained eclipse scapulars from the lower rows would be expected to show a more complex pattern, typically a vermiculated grey base with a plain brown distal third and pale fringe. This provides the best support of the bird's age, as also noted by Langman (2006). Some eclipse drakes can show some scapulars with buff internal markings, usually as a subterminal band. *Contra* Cramp & Simmons (1977), this pattern appears not to occur in juvenile males (or if it does, it is extremely rare) and might prove to be another useful feature.

Tail

This shows a distinct contrast between mainly grey adult-type central feathers and the retained, browner, outermost feathers. We now know (i) that this combination is typical of juveniles moulting to first-winter plumage, which replace their central tail feathers first; and (ii) that the age-diagnostic juvenile pattern of a V-shaped notch and protruding shaft at the tip is extremely hard to see in the field on young Falcated Ducks (at least in part due to the close overlap of tail feathers). This pattern is not visible in photographs of the Devon bird and could not be seen on juvenile Falcated Ducks of either sex in the collection at Slimbridge, which were watched down to a few metres. In adults, however, all the tail feathers are more or less grey, although some birds can show a subtle contrast between browner-toned older feathers and fresher plain grey ones.

Upperwing-coverts

The variability in the pattern of the upperwing-coverts in juveniles (see above) means that this feature should be used with caution in terms of ageing, but it should be useful with at least some birds. Some photos of the Devon bird show a paler fringe to rather dusky-grey smaller coverts – a pattern typical of juveniles and not matched by adults as far as we know. The Devon bird showed obviously warm brown tips to the greater coverts (e.g. plate 18); although this feature is more characteristic of adults, it was not shown by all adult males at Slimbridge, whereas some juveniles *did* show such warmer feather tips. This is a feature worth noting but is of limited use as an ageing character in the field.

Tertials

Photographs show that by late November the Devon bird had full-grown blackish-brown tertials with a narrow, whitish-fringed outer web and broader grey fringing at the feather base. This pattern is the same as that shown by first-winter males but is also similar to the pattern of some eclipse male tertials. Some adult males retain their eclipse tertials until at least late October, but the majority will have dropped them simultaneously at this time leaving no visible tertials. More advanced adults can show part-grown adult-winter tertial feathers from mid October onwards. These long and beautiful falcate feathers are often not fully grown until after the end of November. The tertials of the Devon bird are considered more likely to be first-winter feathers than retained adult eclipse ones.

Minor features

Flank feathers

This was mentioned as a possible ageing character for the Devon bird by Langman (2006). The shape and pattern of flank feathers in juvenile and eclipse males are quite variable, however, and we could find no consistent differences.

Conclusions

Correct ageing of moulting male Falcated Duck in autumn is best achieved by carefully looking for distinctive retained feathers, either juvenile or eclipse male. Although it is acknowledged that we still have only a partial understanding of the moult of this species and that more work on both captive and wild birds would be useful, we are confident that the Falcated Duck in Devon in 2006/07 was a juvenile male moulting to first-winter

plumage. The features supporting this are as follows:

- Retained juvenile lower scapulars have plain brown centres and pale warm brown fringes. This feature alone enables the bird to be aged as a first-winter. In contrast, an adult in eclipse would normally show a more complex patterning to these feathers, usually with grey vermiculation at the bases of at least some scapulars.

- Moult contrast in the tail between new grey central first-winter feathers and browner retained juvenile outer feathers also supports ageing as a first-winter.

- The rather dusky smaller wing-coverts show a paler fringe; this is a pattern typical of juveniles, with adults usually showing uniformly paler and cleaner grey smaller coverts.

- A possible supporting feature is the tertials, which match those of first-winter males, but are similar in pattern to those of some adult males in eclipse. Adults drop their eclipse tertials simultaneously in October or November, so any bird lacking tertials at this time of year and stage of moult is likely to be adult, though the variation in timing of this moult means that the converse is not necessarily the case.

19. Adult male eclipse Falcated Duck *Anas falcata*, showing round-tipped tertials, which are duller toned than adult winter tertials.

Martin Garner © NHM, Tring

20. Captive (pinioned) adult male Falcated Duck *Anas falcata*, showing a full set of adult-type grey tail feathers (though some are slightly brown-washed, and stained); Martin Mere WWT, 17th October 2008.

Martin Garner

Acknowledgments

Peter Kennerley kindly redrafted two discussion papers by the authors on the Devon bird to form the basis of this paper while Chris Kehoe and Roger Riddington later made significant improvements to the text. Steve N. G. Howell made helpful comments on an earlier draft and also provided the draft text on wildfowl prior to publication of his book on moult, which helped to give us a better grasp of some of the complexities of wildfowl moult. Mark Adams at NHM, Tring, kindly allowed access to the skins in their collection, and Ian Lewington provided insightful comments while examining specimens with JPM. WWT at Slimbridge, particularly Martin McGill and James Lees, were most helpful in allowing access to the breeding pens to study the juvenile birds.

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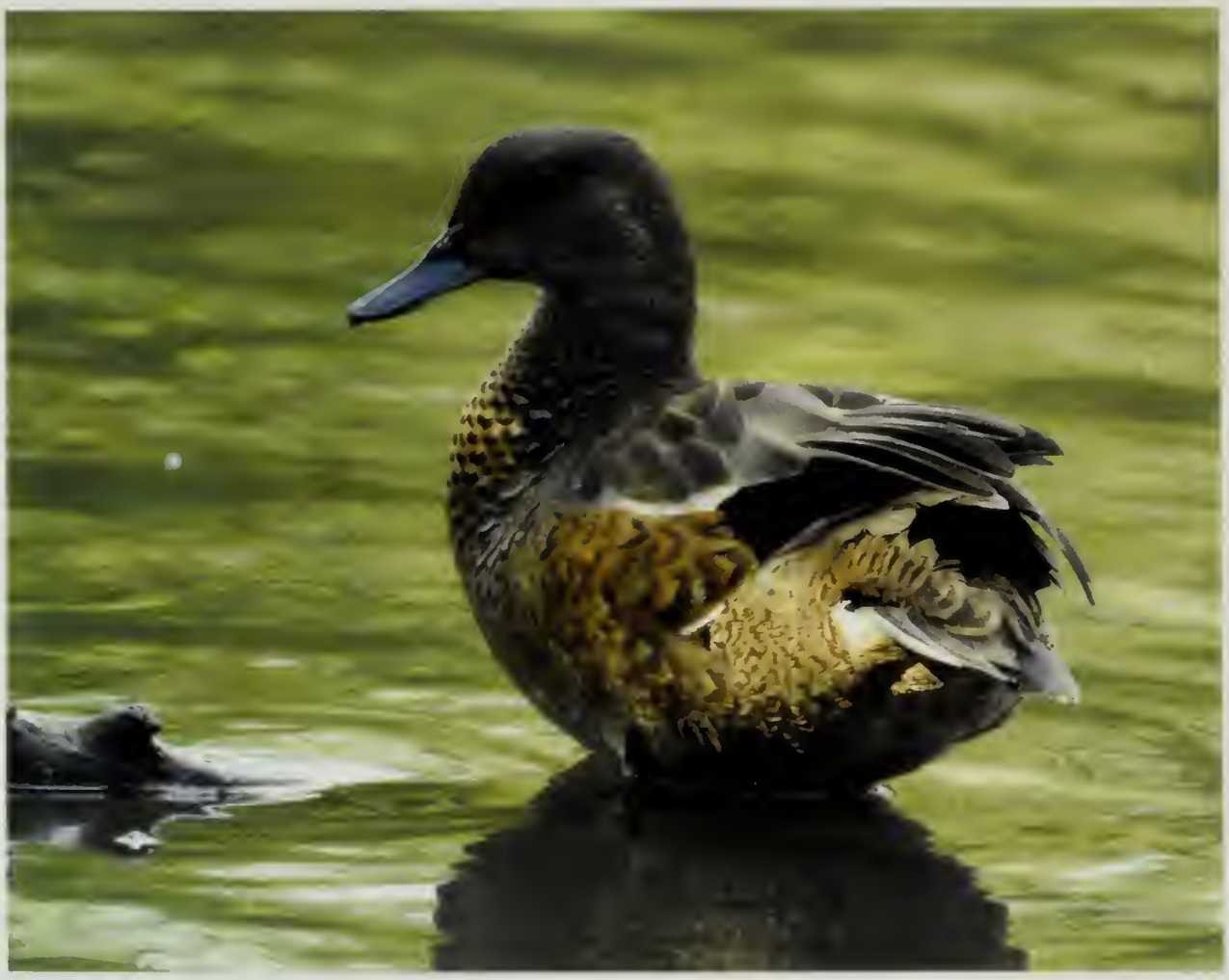

Barry Wright

21. Eclipse male Falcated Duck *Anas falcata*, Kent, 17th August 2008. The tell-tale grey vermiculation of this (presumed escape) adult male in eclipse plumage is just visible on the otherwise brownish scapulars. However, the tertials (at least in this photograph) are indistinguishable between those of eclipse and first-winter male, while it is hard to tell whether the tail feathers are grey or brown! Ageing Falcated Ducks in autumn is not easy – proceed with caution!

Short paper

Honey-buzzards in southern England

Abstract This paper describes an amateur study of the breeding Honey-buzzards *Pernis apivorus* of the New Forest area, in southern England, which began in 1954 and continues today. Over the 58-year period to 2011, at least 214 breeding attempts were recorded, of which 194 (91%) were successful, with a minimum of 346 young reared. Nest-sites, aspects of breeding biology and breeding density of the study population are discussed.

D. I. M. Wallace

This paper is a summary of a study of Honey-buzzards *Pernis apivorus* in southern England, one that began in 1954 and continues to the present day. It is dedicated to those individuals, including four no longer with us, who have kept watch and contributed data. The survey is a rather simple yet focused long-term population study, by amateur birdwatchers, of a group of breeding and summering Honey-buzzards in and around the New Forest, Hampshire. The work is most notable for its originality and for the fact it has spanned nearly 60 years. During that time, the principal aim has been to ensure maximum breeding success of the pairs within the study area. The accumulation of scientific data, for example by frequent and close attention to nest contents, has been less of an aspiration – such work has been and is carried out elsewhere within the Honey-buzzard's European range, where the species is more common (e.g. Bijlsma 1998). Furthermore, given that the study area is in southern England, densely populated by humans, we have consciously tried to avoid drawing needless attention to nest-sites, since too close an approach (such as nest-climbing, particularly at vulnerable periods of the breeding cycle) can have a negative impact. We have, for example, recorded an instance of a Honey-buzzard, on the point of laying its first egg, deserting its nest when disturbed; and cases where juveniles were flushed from the nesting tree before strong enough to fly, and as a consequence have been grounded and perished. Nest searches or visits, particularly late in the season, can result in adult Honey-buzzards becoming very vocal, which may advertise their presence unnecessarily. Instead, given the species' rarity, and long history of persecution (e.g. Saunders 1899), we followed the maxim of David Bannerman (Bannerman & Lodge 1953–63): 'If, as almost certain, the bird has nested in recent years, it is certainly wise to keep the locality dark, judging from past experience.'

Recording area

The recording area encompasses the 57,000 ha of the New Forest National Park (created in 2005) and is inclusive of the 37,900 ha of crown and private land within the New Forest perambulation (legal boundary). Of at

least 28,150 ha of woodland and unenclosed land there are 8,379 ha of plantation (4,744 ha conifers, 2,744 ha hardwoods and 891 ha mixed); 211 ha of natural pinewood; 3,671 ha of oak *Quercus*, Beech *Fagus sylvatica* and Holly *Ilex aquifolium* ancient pasture woodland; and about 15,900 ha of a mosaic of mire, wet, humid and dry heath and grassland (Tubbs 1986).

Nest-sites

Nesting Honey-buzzards in the study area have shown a preference for predominantly broadleaf woodland, where 62% of the total of 214 nesting attempts was made. The remaining nests were situated in predominately coniferous woodland (25%) and mixed conifer/broadleaf (13%). Most nests were situated 12–15 m above ground level, though several were 24–27 m above the ground. The nesting tree species for 212 nests is shown in table 1 (note that there are no details for two of the 214 nesting attempts on record).

Most nests were situated in large, mature trees, though some were in thin, spindly ones, particularly oak. Some were extremely difficult to see, especially when concealed by thick Ivy *Hedera helix*. Nesting was not necessarily confined to large woods or blocks of woodland, and small woods and plantations were sometimes used. It is unusual for active nests in the study area to be less than 3.2 km apart, though in one instance the distance between two such nests was less than 1 km. Alternative Honey-buzzard nest-sites in the study area are often 3–4 km apart, some considerably more. However, loss of a nest-site, for example due to tree felling, does not necessarily result in the pair moving its nest-site a long distance in the following season.

Table 1. Tree species used by nesting Honey-buzzards *Pernis apivorus* in the study area, 1954–2011.

Tree species	No.
Oak *Quercus*	91
Beech *Fagus sylvatica*	55
Sweet Chestnut *Castanea sativa*	1
Total broadleaf	147
Douglas Fir *Pseudostuga menziesii*	31
Scots Pine *Pinus sylvestris*	26
Larch *Larix* spp.	5
Western Hemlock *Tsuga heterophylla*	2
Corsican Pine *Pinus nigra*	1
Total conifer	65

The length of individual site and nest occupancy has varied enormously. In one particular broadleaf wood, where one nest in an oak has been used on at least ten occasions over a period of 11 years, eight of which were consecutive, at least 22 nesting attempts have taken place during the study period. In the same wood, another nest, also in an oak, was used for six years during 1997–2003. Another, predominately coniferous, wood has been used on at least 14 occasions over a period of 15 seasons, with 11 nesting attempts in Douglas Fir and three in Scots Pine. Conversely, many woods have been used only once or twice during the study period, while others appear to be avoided. There is sometimes a lapse of many years between renesting in individual trees; for example, a gap of 18 years before one such re-occupancy, when a pair built a new nest in the same crotch in the same oak.

Recent evidence reveals a tendency for some pairs to move away from what we consider to be 'traditional' sites. One example concerns a pair, identifiable by plumage pattern, which has moved, over a period of ten years, 8 km to a second site then a further 8 km to a third site, some 12 km in a direct line from the original nesting wood. It is possible that pairs are moving in response to an increasing Northern Goshawk *Accipiter gentilis* population, but could be due to other reasons such as greater recreational activity.

Aspects of breeding biology

The Honey-buzzards in the study area are regarded as a single population, and monitored as such. More correctly, most breed within a distinct core area of Hampshire, with individual 'outlying' pairs sometimes moving outside the county boundaries in different years. The discovery of breeding pairs, additional pairs and individuals, as well as minimum nest totals and young reared, within the recording area during the breeding seasons of 1954–2011 are shown in fig. 1. Others found elsewhere in the region but outside the study area, including some monitored less systematically, are not included in this table.

Honey-buzzards in the study area are very

Table 2. Factors responsible for failed Honey-buzzard *Pernis apivorus* nesting attempts in the study area, 1954–2011.

Reasons unknown (eggshell remains found on ground below nests on five occasions)	7
Infertile eggs	6
Nest robbed by humans	1
Nest blown from tree	1
Eggs predated after human disturbance	1
Chick probably dying soon after hatching	1
Chick(s) possibly predated by Northern Goshawk *Accipiter gentilis*	2

successful breeders, even in years when wasp (Vespidae) numbers are low. For the purposes of this account, a breeding attempt is defined as one of four possible situations: a pair apparently sitting on eggs; a nest with young; when behaviour or circumstances suggest that a pair has lost eggs or young; or a nest is discovered during the post-breeding season that had obviously been 'active' during the current year. Consequently, the totals of observed attempts are absolute minima. In the study area, between 1954 and 2011, at least 214 such attempts were recorded. Of these, 194 (91%) were successful, with a minimum of 346 young reared (thus 1.78 young per successful nest and 1.62 young per breeding attempt). Successful pairs reared 152 broods (78%) of two young and 42 broods (22%) of at least one young. Of the latter, 33 pairs reared one young from probable single-egg clutches and nine pairs reared one young from apparent two-egg clutches. Known losses of eggs or young in those nine pairs are as follows: on four occasions an egg failed to hatch; on three occasions a chick succumbed in the nest and on two occasions

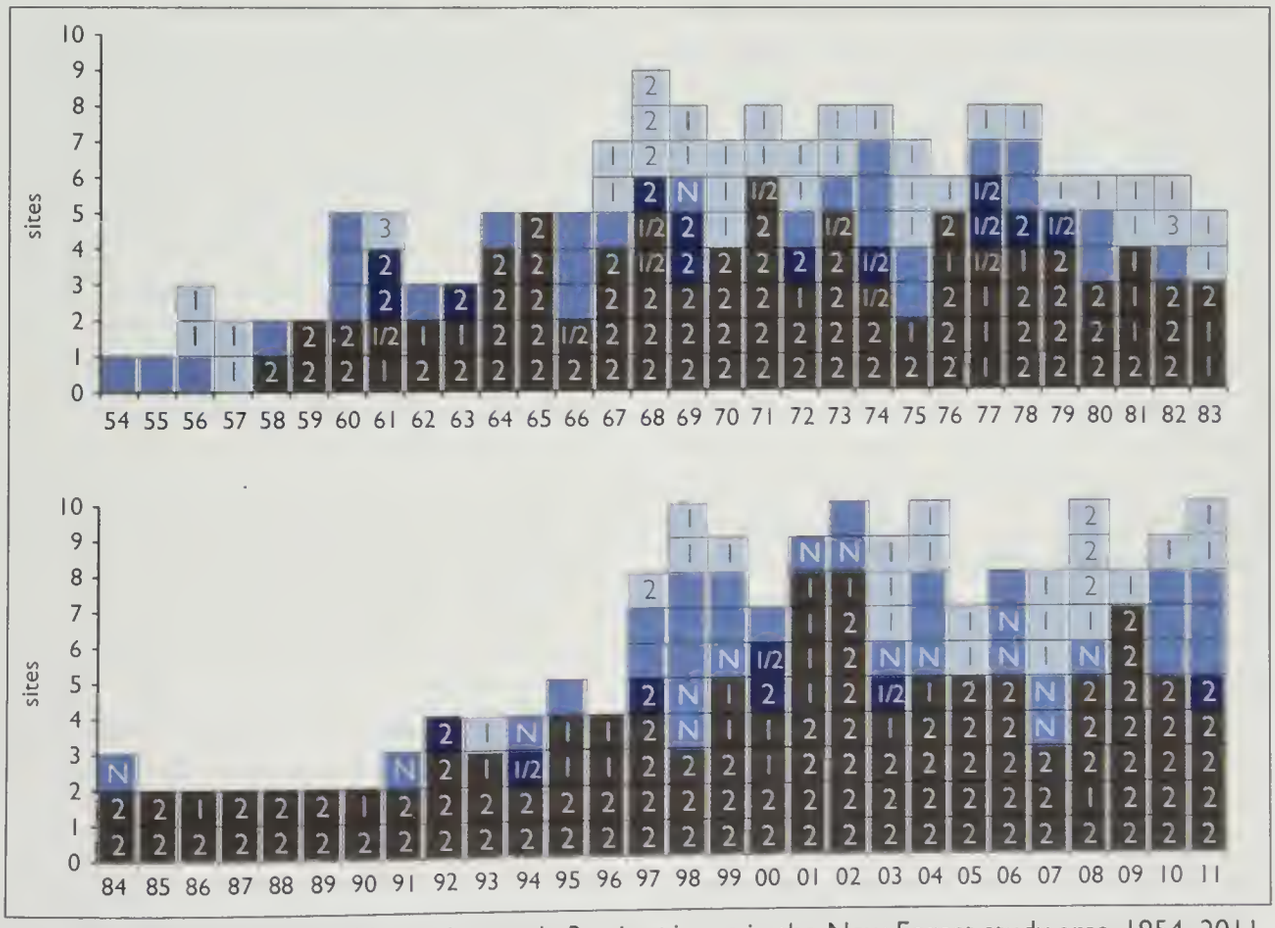

Fig. 1. Details of breeding Honey-buzzards *Pernis apivorus* in the New Forest study area, 1954–2011.
Key: Bird(s) present (number of individuals shown)
- Pair present (N indicates nest(s) built/refurbished)
- Pair laid eggs (number shown) but no young reared
- Successful pair (number fledged shown)

Richard Richardson

Fig. 2. New Forest Honey-buzzard *Pernis apivorus* in flight, by Richard Richardson (painted in 1967).

a fully feathered young was found dead on the ground close to the nest tree. We have recorded no three-egg clutches though, in one instance, two eggs were laid after the probable loss of a first egg.

During the study period, 19 nesting attempts (9%), including 16 when the eggs did not hatch, were unsuccessful. Failed nesting attempts, and the causes of failure where known, are shown in table 2. An additional incident occurred outside our study area when, after the nest tree was climbed (by persons unknown), the two small young disappeared. There is just one recorded instance of a female relaying after the loss of a first clutch. This concerned a pair whose first two eggs, in a nest in a Douglas Fir *Pseudotsuga menziesii*, were predated after disturbance by two groups of birdwatchers on the same day. The pair moved to another wood about 2 km from the first, where, in a replacement nest, also in a Douglas Fir, they were incubating a second clutch by early July and two young were reared.

Non-breeding pairs and individuals often renovate or build nests, decorate them with fresh greenery but fail to lay eggs. One such pair was known to build, or refurbish, at least three nests in one season. In the study area, Honey-buzzards have twice nested successfully in prefabricated nest structures (built by us).

At two sites where nest trees were climbed frequently (not by us), single dead young were found on the ground close to nests, while at a third such site, a live fully feathered youngster was replaced in the nest and subsequently fledged successfully. We have also recorded, outside our area, a dead, fully feathered juvenile on the ground, some 12 m from a nest tree also climbed by others unknown. One site, again outside the study area, was subsequently deserted after persons unknown climbed an active nest tree; as far as we know, the site has not been reoccupied in the 14 years since.

The failure rate of 9% (19 attempts) of 214 nesting attempts compares favourably with that of 10.6% recorded during a study by Roberts *et al.* (1999), when five nests, of a total of 47 nesting attempts, were unsuccessful. In the Netherlands, Rob Bijlsma apparently recorded a breeding failure rate of '22% of 180 nests visited by climbing the [nest] tree on one or two occasions, compared with 26% of 43 nests not visited' (*Brit. Birds* 92: 345–346).

On two occasions in the study area, at different sites and in different years, newly fledged juvenile Honey-buzzards were observed apparently attempting brief display-type flights over nest territories.

Breeding density

Honey-buzzard breeding density is difficult to measure. During the study we found that nest spacing was highly variable between years and dependent on factors such as whether a Common Buzzard *Buteo buteo* was occupying a previous year's nest on a Honey-buzzard's return. During the period 1982–1991, when few pairs were breeding in the study area (fig. 1), the two or three known active nests were in different 10-km squares, except for 1983 when two of three pairs were breeding in one 10-km square. A total of three active nests is the most recorded in the same season in one 10-km square.

The local terrain may affect breeding density. Particularly in strong sunlight, the pale underwings of a displaying male often reflect light in the manner of a heliograph and are clearly visible at some distance; this may well affect the spacing of breeding pairs. Though our relatively gently undulating landscape is hilly in part, the highest point is less than 200 m above sea level. Displaying birds in more rugged country might be less visible to rival pairs and perhaps nest at greater density than those in more open countryside such as ours. Roberts & Lewis (2003) reported a mean distance of 2.4 km between three active nests in an upland conifer plantation and 5.8 km between seven active nests in mixed lowland woodland in 2001. We measured mean distances of 8.6 km between six nests (one of which was 2 km outside the study area) in 2005 and 7.7 km between seven nests in 2009.

Discussion

Nineteenth-century writers gave rather little insight into national population totals or population trends of the Honey-buzzard in Britain, but it is clear that, for at least two centuries after the first written mention of the species in Britain (in John Ray's *The Ornithology of Francis Willughby*, in 1678), it was found nesting in many parts of the country (see Holloway 1996, though note that nesting records for Somerset in 1898 and 1899 have apparently been overlooked; Ballance 2006).

Hampshire figured predominantly in nineteenth-century literature regarding Honey-buzzards, as a result of the New Forest population becoming widely known to egg and skin collectors. Witherby *et al.* (1938–41) documented few reports of breeding within Britain, though it is possible that the species at that time was under-recorded throughout much of the country. The first pairs of Honey-buzzards that formed part of the present study, located in 1954, 1955 and 1956, may or may not have bred successfully. The first known successful nest in our study, in a Beech tree in 1958, was discovered in the same wood in which Desmond Nethersole-Thompson saw a nest with two young, also in a Beech, in 1932.

It is now difficult to be sure whether the small numbers of breeding pairs found during 1954–63 reflected the observers' relative inexperience or whether nesting was genuinely at a low ebb at that time. By the mid 1960s we were confident that we had located most nesting birds, although some active nests may remain undetected even now. Between five and nine pairs were recorded each year from 1964 until the early 1980s. Between 1983 and 1991, however, numbers fell to two to three breeding pairs, with few non-breeders, before showing a steady recovery to pre-1983 levels. There is no obvious explanation for that decline, and indeed breeding populations elsewhere in Europe have been subject to similar fluctuations (Cramp & Simmons 1980).

Honey-buzzards are highly mobile and the New Forest birds have been recorded foraging up to 12 km from the nest. Non-breeders often move great distances during the same season; non-breeding pairs and single birds have sometimes appeared in the study area for varying amounts of time, with July a favourite month for such wandering birds. Such sightings may include the victims of failed breeding attempts as well as inexperienced birds seeking a territory.

Honey-buzzard breeding population estimates must always be tempered with extreme caution. Data presented by the Rare Breeding Birds Panel (RBBP) for 1973–99 were known

to be incomplete but, during the ten years from 2000 (the year that the first UK-wide survey was undertaken), in which it might reasonably be assumed that most known nest-sites were surveyed annually, RBBP data has shown fluctuations but no clear trends (see Ogilvie *et al.* 2004 and fig. 3 in Holling *et al.* 2011). Even our long familiarity with Honey-buzzards has probably not conveyed an exact assessment of breeding pairs in any given season, although those remaining undetected would not significantly affect the status of the population of our study area. Hopefully, this paper will stimulate a review of the current official assessment of the national status of this very special raptor.

Acknowledgments

I became aware that such a bird as the Honey-buzzard existed as a 14-year-old schoolboy, but Peter LeBrocq first kindled my special interest in the species, in the mid 1950s. An enthusiastic raptor watcher, Peter had seen his first Honey-buzzard display-flighting in east Hampshire in August 1951, and three years later rediscovered them in the New Forest. Other birdwatchers, mainly from Hampshire but also from elsewhere, took up the baton between 1954 and 1958; the most recent field observers, whose observations are incorporated into this account, appeared on the scene in the 1970s. Those with whom I have collaborated for over 50 seasons have been of similar character, in that almost without exception they developed a passion for birds and other wildlife at an early age. It is reputed that one of the three 1950s 'old guard', still involved in the study, stayed overnight alone in the woods, wrapped in an army greatcoat, when six or seven years old. I recall with both great joy and extreme sadness four departed fellow enthusiasts, Derek Chilcott, Colin Tubbs, Peter LeBrocq and Bob Emmett; they are all greatly missed. I am acutely conscious of the influence of unnamed friends who have shared their observations, experiences and knowledge with me and, knowingly or not, have added immensely to my appreciation and understanding of Honey-buzzards and their ecology. In 1975 Colin Bibby posed the question 'Who took the birds out of British ornithology?' (*Brit. Birds* 68: 100–102). I am able to state with conviction that my birdwatching companions of the past half-century are not guilty. I am also greatly indebted to Ian Wallace for contributing the vignettes and for commenting on an earlier draft, as well as to the late Richard Richardson who painted my accompanying Honey-buzzard watercolour; will we ever forget his usual greeting, in that characteristic and well-known stammer, 'H- h- h- how are the H- h- Honey-buzzards?'.

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D. I. M. Wallace

Conservation research news

Compiled by Guy Anderson, Elizabeth Charman and Ian Johnstone

Pushing the boundaries – protected areas and bird foraging ranges

A protected area for a key bird species, or any other species, should ideally include the whole range of resources required by that species. The Special Protection Area (SPA) network is a key system of site designation for bird conservation purposes within the European Union. SPAs typically cover an area of habitat where the bird species of interest is/are known to breed, or a well-defined area of non-breeding habitat – typically a wetland. Drawing SPA boundaries to conserve wide-ranging species effectively may, however, be problematic.

Recent radio-tracking studies of Montagu's Harriers *Circus pygargus* in Catalunya, Spain, have shown that breeding birds use much larger areas for foraging than are covered by SPAs designed to protect their breeding habitat (Guixé & Arroyo 2011). In fact, on average less than 20% of the foraging range of the harriers was within the SPA boundaries, partly because the habitats used for foraging differed from those used for nesting. If the preferred foraging habitats and food resources are not in short supply and under no threat, then in practice this is not necessarily a big problem: if the SPAs protect the key limiting resources for breeding, then they will still be an effective conservation measure. However, if the availability of foraging habitat is a key limiting resource, then the lack of protection over these areas could render the SPAs ineffective.

This highlights the need for Protected Area designation to be based on good knowledge of how and where birds of conservation importance find all the key resources they need. Another good example of this is the need for data on the breeding season foraging ranges and wintering areas of seabirds in Europe, in order to inform future marine SPA designation. Recent advances in bird tracking technology are helping us to start gathering this data.

Guixé, D., & Arroyo, B. 2011. Appropriateness of Special Protection Areas for wide-ranging species: the importance of scale and protecting foraging, not just nesting habitats. *Animal Conservation* 14: 391–399.

Grass can feed birds as well as cows

The declines of seed-eating farmland birds in the UK are now a familiar story. Even numbers of the still-widespread Yellowhammer *Emberiza citrinella* have fallen by 23% in England and 35% in Wales since 1995. The once-familiar 'little bit of bread and no cheese' song is being heard in ever more localised areas.

Research into the causes of these declines strongly implicates a shortage of seed food during winter. In the arable-dominated areas of eastern Britain, this has been caused mainly by increasingly efficient cereal cultivation: herbicides kill weeds that provide seed, little grain is missed by harvesters and autumn sowing has often replaced overwinter stubbles. In western parts of Britain, growing cereals for livestock has been abandoned as farmers can easily buy feed in from elsewhere.

Current agri-environment measures that aim to provide seed food during winter focus on the provision of weed-rich stubbles and the growing of seed-bearing crop mixes (wild bird seed mixtures or WBSM) specifically designed to provide food for birds. However, seed provided by WBSM is usually exhausted by Christmas, resulting in the so-called 'hungry gap' in late winter. Furthermore, WBSMs have not been popular with livestock farmers, who may lack the experience or access to equipment needed to grow them. Finding a practical way to provide winter food for seed-eating birds in livestock-

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22. Yellowhammer *Emberiza citrinella*.

dominated western Britain has therefore become a conservation challenge.

Scientists at the RSPB have found a way to use Perennial Rye-grass *Lolium perenne* (the main grass grown for forage in western Europe) to keep seed-eating birds well fed throughout the winter and (potentially) to plug the hungry gap. This fast-growing grass is used for grazing and in particular for winter feed (when cut and made into silage), yet if it is left uncut rather than letting livestock graze the 'aftermath' it readily produces abundant seed, suitable for finches and buntings like the Yellowhammer.

Experiments showed that Perennial Rye-grass cut once, in late May, would go on to produce abundant seed that continued to attract Yellowhammers and Reed Buntings *E. schoeniclus* until the following March. The birds continued to feed on fallen seed even after the trial plots were cleared of vegetation in the following April. The body weights of buntings using these grass plots were similar to those of birds using high-quality seed sources in arable areas.

The costs to the farmer of allowing rye-grass to set seed included the loss of a second cut, no aftermath grazing and a modest loss of yield in the first cut of the following year. Costs were lower for Italian Rye-grass *L. multiflorum*, from which two cuts could be taken without compromising seed production. One way to minimise costs to the farmer would be to fence off strips of grass along the edge of silage fields and allow these to set seed, while the rest of the field is cut and grazed in the normal way. The authors of this research (Buckingham *et al.* 2011) hope that seeded rye-grass might be incorporated into the UK's range of agri-environment schemes, which would allow payments to farmers to offset any production costs.

Buckingham, D. L., Bentley, S., Dodd, S., & Peach, W. J. 2011. Seeded ryegrass swards allow granivorous birds to winter in agriculturally improved grassland landscapes. *Agriculture, Ecosystems & Environment* 142: 256–265.

Some trees are tastier than others: could the chemistry of pine needles influence Capercaillie habitat preferences?

Life is hard as a Capercaillie *Tetrao urogallus*. The last Conservation Research News reported on a series of studies showing the negative effects of human recreational disturbance on their physiology. Now it seems that some of their food plants are doing their best to avoid being eaten. Conifer needles are a major component of Capercaillie diet, but these can contain a large variety of plant secondary metabolites (PSMs), chemicals produced by the trees, some of which are known to deter some herbivores. The production of these chemicals is genetically controlled, with new defensive compounds evolving by mutation and natural selection until their 'enemies' (the herbivores) evolve counter adaptations and the process is repeated. Put another way, conifers and herbivores may be co-evolving in a chemical arms race.

Scientists working in Abernethy Forest,

RSPB-images.com

23. Capercaillie *Tetrao urogallus*.

Highland, recorded which mature Scots Pine *Pinus sylvestris* trees (a tree species known to be favoured by Capercaillies) were used for foraging and roosting, and which were not. They then compared PSM levels in pine needle samples collected from trees that were used by Capercaillies with those that were not used. Plants containing more of the dominant monoterpene α-pinene and the minor compound β-ocimene were avoided by Capercaillies. This avoidance may act as positive selection pressure for the production of these defensive plant compounds, i.e. the individual trees that produce more of them suffer less herbivory and therefore reproduce more successfully, passing the trait on to their progeny.

The conservation implications of these findings are important and challenge scientists to explore them further. For example, there may be forest areas that appear suitable for Capercaillies in other respects, but which are rendered unfavourable for feeding and roosting owing to the presence of trees that produce high monoterpene levels in their needles. If this is the case, management for Capercaillie conservation could be enhanced through knowledge of the distribution of suitable and unsuitable trees. The Capercaillie population in Scotland remains small and restricted. Any such addition to our knowledge base on how to create good habitat for Capercaillies is welcome and important.

Iason, G. R., O'Reilly-Wapstra, J. M., Brewer, M. J., Summers, R. W., & Moore, B. D. 2011. Do multiple herbivores maintain chemical diversity of Scots Pine monoterpenes? *Phil. Trans. R. Soc. B.* 366: 1337–1345.

Roger Riddington

24. Abernethy Forest, Highland, April 2009.

Letters

The return of the Red-billed Chough to Cornwall

The recent paper on the return of the Red-billed Chough *Pyrrhocorax pyrrhocorax* to Cornwall (Johnstone *et al.* 2011) was an interesting résumé of the last decade of RSPB involvement in the saga of the 'Cornish Chough'. However, I should like to make the following points.

The current initiative, described by Johnstone *et al.* (2011), superseded 'Operation Chough', which was launched in August 1987. My own interest in Chough ecology began in the early 1970s, when the last truly Cornish Chough was still alive, at Stem Cove near Mawgan Porth. (Johnstone *et al.* stated that the last breeding record for Cornwall was in 1947, but at least one chick hatched in a cave nest at Stem Cove in 1963; A. Archer-Lock pers. comm.) My early enquiries were subsequently consolidated in five years of doctoral research (Meyer 1991).

Naturally sedentary, Choughs have made occasional and irregular invasions into Cornwall. These are mostly single individuals, but occasionally pairs; I spent ten weeks in the severe winter of 1986 studying a pair on Rame Head (Meyer 1990), which was an interesting precursor to subsequent events.

Ecologically, and particularly in the context of safeguarding the future of the vulnerable Lizard population, it is important to compare like with like. On several occasions, Johnstone *et al.* (2011) drew on evidence from other populations in Britain & Ireland yet disregarded, to a large extent, data from west Wales (here taken to refer to the counties of Ceredigion and Pembrokeshire), where the nearest and most equivalent habitat to Cornwall is found. However, the behaviour of Choughs in Scotland and upland Wales should be used only with great caution before conclusions are applied to populations in southwest Britain and Brittany; for example, rough grazing is far less important for Choughs in these areas than in Scotland.

According to table 1 (in Johnstone *et al.*), the only area where earthworms (Lumbricidae) were recorded as being a favoured part of Chough diet was in west Wales. Lumbricids are certainly preyed upon elsewhere (e.g. Bignal *et al.* 1987) but can remain undetected unless microscopic faecal examination reveals the characteristic chaetae, and this is often not done (Judy Warnes pers. comm.). Since they are a transport host for Gapeworm *Syngamus trachea*, a suboptimal diet bulked out with earthworms may have fatal consequences for Choughs, particularly if the birds are stressed through intercurrent disease and/or are malnourished. Meyer & Simpson (1988) gave an account of the demise of one Chough due to Gapeworm. Earthworms are a by-product of pastoral agriculture, and Johnstone *et al.* made much of 'targeted habitat management', in a partnership involving farmers and the National Trust. However, care should be taken not to run away with the idea that habitat management is the most important thing. Natural cliffs, with their infinite range of foraging possibilities throughout the year (which are often impossible to survey, certainly using broad-based survey methods), are of primary importance for lowland Choughs. The work in west Wales has demonstrated clearly that the agricultural hinterland is of secondary importance to the natural cliffscape. This reinforces my point that west Wales and Cornwall are quite different in ecological terms from north Wales. The existence of bare-earth exposures within natural vegetation mosaics, often accommodating small annual plants – most notably the key indicator species Early Hair-grass *Aira praecox* – formed the most important single feeding complex in west Wales (Evans *et al.* 1989; Meyer 1989). It is also important to note that Choughs using naturally eroded cliffscapes were more relaxed and showed better foraging success than those dependent on pasture. Choughs are expert at utilising temporal edaphic zones and ecotones. They also feed *beneath* vegetation, exploiting habitats invisible to casual or remote observation.

Finally, not enough attention is paid to nestling food. Choughs prefer to nest near habitats rich in ant colonies, especially *Lasius*

alienus and *L. flavus*, which favour open, sunny, non-cultivated sites. Susan Cowdy's work on Ramsey Island (again in west Wales) confirmed that ants are vital nestling food (Cowdy 1973). They are offered to chicks in the form of a bolus, and I often witnessed Chough parents digging so feverishly for ants that they disappeared from sight in a deep hole amidst a cloud of sandy soil! The UK distribution of *L. alienus* (see www.eakringbirds.com/eakringbirds6/insectinfocuslasiusalienus.htm) is interesting, and bears some resemblance to the distribution of Choughs, at least along western coasts of Britain.

Acknowledgment

I should like to thank Alison Hales who provided helpful comments on an earlier draft of this letter.

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Richard Meyer makes some interesting observations, including those based on his own unpublished reports and personal communications. Indeed, there is much information about Choughs in the 'grey' literature and we would have liked to include more of it in our paper had space allowed.

Nevertheless, because we now have ten years of data from Cornwall, his observations have only limited bearing on our approach to the re-establishing population. For example, veterinary post-mortems show no evidence as yet that Gapeworm is a problem among Cornish Choughs (see Johnstone *et al.* 2011, table 4). Furthermore, no Choughs have been seen eating earthworms, and survival rates in Cornwall have been encouragingly high. Ants, on the other hand, are an important prey (table 1), but we are aware of no published evidence to support the suggestion that availability determines site selection or breeding success. One of the several studies we refer to from coastal north Wales showed that favourable grazing management can positively influence field usage by Choughs, resulting in a net gain of foraging habitat (Ausden & Bateson 2005). Furthermore, a study in Brittany has advocated grazing inland in order to mitigate the impact of increasing numbers of tourists using coastal paths on Chough survival rates (Kerbiriou *et al.* 2006) – a situation relevant to Cornwall.

Our emphasis has been based very much on the precautionary principle – maximising the potential for success of every breeding attempt by encouraging favourable agricultural management on adjacent coastal slopes and clifftop fields. As we make clear in the paper, we have no direct evidence that this benefits the birds in Cornwall (an experimental design was not possible for obvious reasons), but to not adopt this approach in the early stages of natural recolonisation could have made the difference between the success we describe, and another failure by Choughs to re-establish in Cornwall.

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Kerbiriou, C., Le Viol, I., Robert, A., Porcher, E., Gourmelon, F., & Julliard, R. 2009. Tourism in protected areas can threaten wild populations: from the individual response to population viability of the Chough *Pyrrhocorax pyrrhocorax*. *J. Appl. Ecol.* 46: 657–665.

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Common Cranes in the UK

Having read the excellent paper chronicling the recolonisation of Common Cranes *Grus grus* in the UK (Stanbury *et al.* 2011), I thought that the limited coverage of the Yorkshire breeding birds gave readers a slightly misleading perspective. The paper referred to a pair summering in 2001 and breeding from 2002 when, in fact, a lone male wandered around Yorkshire in spring 2000 and established a territory then.

In early June 2000, I was surprised when I heard a Crane calling from my workplace in Yorkshire and I soon found a male looking at home in perfect breeding habitat. I considered it possible that a female might have been incubating in the area and so the news was not broadcast widely. The site was private with no public access. This bird had visited various places before taking a liking to my 'patch'; it was present from June until late August and called regularly at night, apparently in the hope of attracting a mate. No other bird was seen before it departed but I hoped that it might return the following spring with a mate.

In spring 2001, what was presumably the same male did indeed return, with a female, probably a young bird, and they proceeded to establish a territory. I suspected that a breeding attempt may have occurred and that the many Red Foxes *Vulpes vulpes* on the site presumably thwarted this (in later years, I watched Cranes behaving aggressively towards Foxes that approached the nest area and the disappearance of small young was always attributed to predation by Foxes). The pair departed in late summer 2001 and returned again in 2002 (and in each subsequent year, as the recent paper states).

The fact that a single bird wandered around Yorkshire before establishing a territory in June suggests that it was not originally part of the Norfolk population – it seems more plausible that an unsuccessful Norfolk bird would have returned to the Broads much earlier in the summer rather than remain alone in Yorkshire until late August (as wandering birds in Norfolk appear to do). Moreover, the Yorkshire pair has always been migratory, unlike the Norfolk population. Once they arrive in Yorkshire in spring, they do not roam or make temporary return visits to Norfolk, which surely suggests a continental origin for the male at least (the male found its mate on the wintering grounds in 2000/01, and it is conceivable that this could have been in Norfolk).

I find it strange that the birds from the Norfolk population, along with the recently released birds in Somerset, never attempt to migrate, while all other Cranes visiting the UK do. The birds from other breeding attempts listed by Stanbury *et al.* (Yorkshire and Caithness), along with the summering pairs in various parts of the UK, have all departed at the end of the breeding season. The non-migratory behaviour of the Norfolk birds mirrors that of other released crane species derived from captive stock, for example Siberian Cranes *G. leucogeranus* at Bharatpur, in India, and Whooping Cranes *G. americana* in Florida, USA.

The behaviour of other species, for example various introduced geese and the Bald Ibises *Geronticus eremita* at Biricek, in Turkey, which were prevented from learning migration routes from their parents, have also adopted non-migratory behaviour or have followed surrogate parents to the 'wrong' wintering grounds. For this reason, it seems that the Norfolk population is most likely derived from captive stock or birds injured in some way that prevented natural migratory behaviour.

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Editorial comment Andrew Stanbury has commented as follows: 'Records from the Yorkshire Bird Recorder suggest that there were two single Cranes summering in 2000, one from 5th June (presumably the bird referred to by Phil Palmer) and the other for five months from late March.

There are a number of unanswered questions and much conjecture surrounding the origins of the UK Cranes. The fact that the Norfolk birds are non-migratory does not rule out the possibility of them being of wild origin: several other bird species are mainly migratory in mainland Europe and Scandinavia but are largely resident in the UK as a result of its mild climate, including Red Kite *Milvus milvus*, Common Buzzard *Buteo buteo* and Eurasian Bittern *Botaurus stellaris*. In addition, Common Crane populations around the Black Sea also appear to be largely sedentary. As we pointed out in our paper, the Yorkshire birds are believed to winter in Norfolk, which doesn't necessarily mean that that's where they originated from, and they could indeed be of continental origin. DNA from birds in the UK breeding populations is currently being analysed, and being compared with samples from elsewhere in Europe, including Germany and Scandinavia, and farther east. It is hoped that this may answer some of the questions and it is our intention that any results will be published in *BB*.

Eastern race, aberrant morph, runt or Oriental?

During the preparation of the recent paper on 'eastern' Skylarks *Alauda arvensis* (Lees & Ball 2011), I looked at the original photographs of the Butterwick and Whalsay birds and two worries arose. Firstly, the flight feathers of the former lacked completely the signal flight character of the subject species, i.e. the usual bright whitish trailing rim to most remiges. Secondly, the latter's seeming squatness (stemming from the short projection of primaries from tertials and tail tip from wing-tip) suggested the structure of the congeneric (and not utterly impossible) Oriental Lark *A. gulgula*. Hence I am disappointed to find neither issue addressed in their revised statement.

In my experience of Skylarks of the races *cantarella*, *dulcivox* and *kiborti* (Vaurie 1959) in their breeding ranges, no observed individual failed to show a pale trailing edge to the wing. Furthermore, although no European claim of Oriental has yet succeeded, some individuals do move at least 1,500 km southwest of their southern core range (e.g. Shirihai 1996, Eriksen *et al.* 2003).

None of this should detract attention from the call by Lees & Ball for more attention to the likely vagrancy of eastern Skylarks. It is just 'Sod's Law' that the two individuals that they illustrate may have had wonky genes!

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Editorial comment Alex Lees and Alan Ball have replied as follows: 'We thank Ian for his letter and continued interest in the identification of *Alauda* taxa. In the end we decided not to "muddy the waters" by opening up a discussion of Oriental Lark given space constraints, although this species certainly needs to be borne in mind. However, a white trailing edge *is* visible in the images of the Butterwick lark, though it was more prominent in real life (it's not particularly obvious even in the "normal" bird), and Oriental can be ruled out easily on biometrics and other plumage characteristics (AB had field experience of *gulgula* from Israel prior to the capture of the Lincolnshire individual and was aware of this potential pitfall). Like Ian we anticipate a future European vagrant...'.

The correct gender of *Poecile* and the scientific name of the Willow Tit

Following Andrew Harrop's letter on this topic (*Brit. Birds* 104: 668–669), we have received correspondence from both of the main protagonists in the debate. This is summarised below, and correspondence on this topic in *BB* is now closed. *Eds*

From Normand David and Michel Gosselin:

While trying to prove that *Poecile* can be only feminine, Andrew Harrop (in the longer version of his letter, on the *BB* website) summarily dismissed the -is, -is, -e Latin endings for the sole reason that they are supposedly non-existent in Latin nouns. Yet when Kaup (1829) established the avian genus *Poecile*, he clearly wrote that it was based on *poikilos* (a Greek masculine adjective, not a noun). It is not unusual for zoological generic names to be derived from adjectives (e.g. *Criniger*, *Incana*, *Megastictus*).

This point only strengthens our view that Kaup's *Poecile* should be classified as a word of 'common or variable ending', and therefore treated as masculine.

As for *Leptopoecile*, instead of quoting what Severtsov (1873) actually wrote (i.e. that *Leptopoecile* means 'related to tits'), Harrop speculates that it is derived from the Latin noun *poecile* ('a celebrated hall or portico in the market-place at Athens'). Jobling (2010), though, had already cogently recognised that *Leptopoecile* is the genus name *Poecile* Kaup, 1829, with the Greek prefix *leptos* [delicate]. Therefore, *Leptopoecile* should be treated in the same way as the generic name *Poecile*.

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From Andrew Harrop:

I agree with David & Gosselin that *Leptopoecile* and *Poecile* should be treated in the same way. The crux of the matter is therefore the correct gender of *poecile*, which I have already clarified and discussed in some detail previously (*Brit. Birds* 104: 668–669). David and Gosselin imply that it somehow needs to be proved that *poecile* is feminine, yet this is not the case: the Greek word *poikile* and the Latin word *poecile* (which is the same word, as I have explained previously) are both feminine in Greek and Latin dictionaries respectively, and feminine according to Greek and Latin grammar. This is a matter of fact, not interpretation.

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A fuller version of the arguments presented here can be found on the *BB* website at www.britishbirds.co.uk/category/letters

Notes

A record influx of Balearic Shearwaters in Devon and Cornwall

The Balearic Shearwater *Puffinus mauretanicus* is classified as Critically Endangered on the IUCN Red List because of its declining breeding population (currently estimated to be c. 3,200 pairs; Arcos 2011), and yet post-breeding numbers arriving in UK waters have apparently increased in recent years (Wynn & Yésou 2007; Wynn 2009). The species is currently a focus for conservation action in southwest England, with numbers continuing to be monitored by the SeaWatch SW team (www.seawatch-sw.org) in partnership with MARINElife, JNCC and RSPB. Here, we describe a major influx of the species into the region in September 2011, with new record day counts for both Devon and Cornwall.

The origin of the influx was almost certainly a major aggregation of around 5,000 Balearic Shearwaters off southern Brittany in late August, which had largely dispersed by 2nd September after the onset of southwesterly winds (Laurent Thebault pers. comm.). Some of these birds evidently shifted north into UK waters, since 101 passed southwest off Start Point (all sites mentioned in this note are in Devon, unless stated otherwise) on 3rd September, the first significant UK count of 2011.

Over the next few days, a generally southwest to west airflow facilitated movement of more birds into Lyme Bay, and on 5th September a gathering of around 6,000 shearwaters was seen feeding distantly off Berry Head. Although these were mostly Manx Shearwaters *Puffinus puffinus*, sample counts of closer birds revealed around 6% to be Balearic Shearwaters, indicating a major influx (perhaps 300+ birds).

On 6th September a low-pressure system arrived from the west, with strong to gale force SSW winds. It looked likely that the Devon record day count (145 on 2nd September 2009) would be broken in such conditions, and hopes were not disappointed: observers at Berry Head saw 304 Balearics pass south, those at Start Point had 238 pass southwest, while at Prawle Point (just outside Lyme Bay) 160 were logged heading west.

A few days later the highest numbers of birds were recorded in the northern part of Lyme Bay. On 11th September, another Devon record was set when 376 passed Orcombe Point. Large counts at nearby sites included 220 off Dawlish Warren and over 250 moving west off Budleigh Salterton, while farther west and east there were counts of 100+ at Hope's Nose and 140 at Chesil Cove (Dorset), respectively.

On 12th September the remnants of Hurricane Katia swept in and the Devon record was broken yet again, with at least 383 Balearic Shearwaters leaving Lyme Bay and moving southwest off Start Point. Also that morning, 229 were seen moving southwest off Dawlish Warren. Many of the Start Point birds apparently continued westwards, as a comparable total of 416 were seen moving west off Gwennap Head (Cornwall) on 12th–13th September.

At least 200 Balearic Shearwaters were still feeding in the northern part of Lyme Bay on 14th, with notable counts continuing there until 17th September (including 63 birds foraging behind a single trawler off Berry Head on 16th September!). It is possible that the westwards exodus of these birds contributed to a new Cornish record day count of

Fig. 1. Observations points in southwest England referred to in the text; Lyme Bay is the area between Start Point (3) and Portland Bill (10).

Mark Darlaston

25. Balearic Shearwater *Puffinus mauretanicus*, off Start Point, Devon, September 2011.

Mark Darlaston

26. Manx *Puffinus puffinus* and Balearic Shearwaters *P. mauretanicus*, off Dartmouth, Devon, July 2010.

283 past Gwennap Head on 18th September (the same date that the same observer broke the Cornish record one year earlier). Few remained in Lyme Bay after this date but good numbers continued to circulate off Gwennap Head, with three day counts of 150–200 in the period 19th–26th September. Taking into account as best we can the duplication of sightings between different observation points, we estimate that more than 600 birds were present off Devon and Cornwall in mid September 2011. This equates to 2.5% of the estimated world population of c. 25,000 individuals (Arcos 2011), highlighting the increasing importance of this region for this Critically Endangered seabird.

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Curlews feeding in stubble fields

There is no mention in *BWP* of the Curlew *Numenius arquata* feeding in stubble fields, and reference to other literature has similarly proved negative. Intrigued, I found that I have recorded this species feeding in stubble fields on just three occasions, all in Norfolk: on 9th March 2002 (six, feeding among c. 50 Wood Pigeons *Columba palumbus* in a field of grassy stubble at South Creake); on 2nd January 2004 (23 feeding in a stubble field which had a good growth of thistles *Cirsium* and Ragwort *Senecio jacobaea* near Cockthorpe); and on 13th January 2011 (43 feeding in a barley stubble, which had recently thawed out after being snow- and frost-bound, at Wells-next-the-Sea). In all three instances the birds were picking items from the ground surface and not probing. Is the behaviour genuinely rare or simply unrecorded?

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Tawny Owl hanging upside down in response to aggressive Carrion Crows

On 28th March 2011, while working in Cassiobury Park in Watford, Hertfordshire, I was asked to look at an owl that a member of the public was concerned about. Expecting that it would be one of the resident Little Owls *Athene noctua*, I was surprised to find an adult Tawny Owl *Strix aluco* hanging upside down from a branch, just 6 m from the ground! It seemed that it had been attacked by two Carrion Crows *Corvus corone* whereupon it had flown into the tree to adopt this unusual posture, hanging like a bat! I managed to take two photos of the owl on my phone (plates 27 & 28) before it flew off, when the two crows immediately attacked it once more. *BWP* makes no mention of such behaviour and I can only speculate as to the reasons. It is possible that it was partially stunned in the earlier attack, or that it was adopting an unusual form of camouflage, trying to avoid showing its characteristic outline in an effort to outwit the crows.

Ian Bennell

Ian Bennell

27 & 28. Tawny Owl *Strix aluco*, Hertfordshire, March 2011.

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Nest defence behaviour by Marsh Tits in response to a stuffed Weasel

Among the Paridae, the well-studied family of Holarctic tits and chickadees, there are surprisingly few descriptions of adult defensive behaviour against predators at the nest-site. The most common behaviour, which may be universal in the family, is the hissing display given by incubating/brooding females to nest intruders (Broughton 2005). But some species have also been recorded giving visual displays and calls against potential predators from outside the nest chamber. Betts (1958) observed a male Great Tit *Parus major* reacting to a Red Squirrel *Sciurus vulgaris* near its nest (containing young) by flicking the wings, giving *hiss* and *tink* calls, and flying at it with outstretched wings. Long (1982) described the elaborate nest-site distraction display of the Black-capped Chickadee *Poecile atricapillus*, in which adults faced the predator and slowly raised and lowered their outspread wings, twisting the body from side to side and uttering a loud *fzz* call. Similar visual displays have also been reported for some nuthatch *Sitta* species (Matthysen 1998).

During a long-term study of the Marsh Tit *Poecile palustris* at Monks Wood in Cambridgeshire, I tested the anti-predator behaviour of adults by placing a stuffed Weasel *Mustela nivalis* outside a nestbox containing a brood of eight-day-old young. The parents

were both colour-ringed, of known sex and two years of age. In the late morning of 19th May 2006, the Weasel was placed on top of the nestbox and the response of the adults was recorded on a digital video camera for three minutes from their arrival from foraging.

The reaction of the birds to the Weasel was immediate and involved two stylised visual displays with associated calls, and also physical attacks on the Weasel mount. The first display involved both parents adopting an upright posture with the head positioned forwards and the feathers of the nape, cheeks and throat (but not the crown) held erect. The body feathers were sleeked and the wings held closed and pointing downwards, below the tightly closed and slightly cocked tail. The birds regularly changed their body orientation from side to side while repeatedly giving churring calls composed of a rapid string of *dee* notes, for example *deedeedeedeedee-dee-dee.*

Both parents also engaged in a display that was identical to the nest-site distraction described for the Black-capped Chickadee by Long (1982), in which the birds faced the Weasel from perches 1–2 m away, with body leaning forwards and a fanned tail, intermittently waving the outstretched wings and swaying the body from side to side, while frequently changing perches and occasionally jerking forwards and uttering a rasping *hiss* call (similar to that described for incubating females by Broughton 2005). The male escalated this display into diving attacks on the Weasel, striking the head of the mount at least twice with the bill while in flight, ultimately with such force that the Weasel was knocked over. On removal of the Weasel the adults resumed feeding the young, which later fledged successfully.

While the wing-waving nest-distraction display is performed by at least one other species in the *Poecile* genus, the upright posture with erect cheek, throat and nape feathers does not match any of the previously reported visual displays for the Marsh Tit or any other parid, although it shares some elements with several (Smith 1991; *BWP*). There is incomplete information on the range of visual displays and postures among these species, however, so it may not be unique to the Marsh Tit.

Weasels are the most dangerous nest predator for breeding Marsh Tits at Monks Wood, occasionally killing females on the nest as well as chicks and eggs (Broughton *et al.* 2011), so physical attacks by the male indicated a high level of investment in the breeding attempt.

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Aggressive intraspecific behaviour among male Black Larks in winter

Few birds can endure the winter on the hostile steppes of northern Kazakhstan, where temperatures regularly plummet to -40°C or below and blizzards can last for days. A remarkable exception is the Black Lark *Melanocorypha yeltoniensis*, a breeding endemic to the steppes of Kazakhstan and the adjacent regions of Russia. After the breeding season, females migrate to southern Central Asia, Pakistan and Iran, but most males remain on the breeding grounds in winter. A number of morphological features, such as the relatively large body size, a heavy bill and sturdy legs, have been interpreted as adaptations to aid survival in the harsh conditions in the steppe in winter, although the black plumage of the males appears anomalous. The heavy bill is used like a small hammer:

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29 & 30. Male Black Larks *Melanocorypha yeltoniensis* digging for food in snow-covered steppe, Korgalzhyn region, Kazakhstan, January 2011.

seeds of steppe plants (mainly feather grass *Stipa*) and inside spilt grain are 'threshed' out of the glumes by a very fast, but vigorous series of precise pecks (Dolgushin *et al.* 1970).

A flock of about 300 Black Larks was found on 15th January 2011 between the villages of Korgalzhyn and Shalkar in Kazakhstan's Akmola district (at 50°28'N 70°02'E). On 29th January, the site was revisited for the purpose of making an exact count and behavioural observations. By this time, numbers had risen to 864 birds, exclusively males. The temperature was -7°C, but strong winds and drifting snow generated Arctic-like conditions. The birds were feeding frantically, using their legs to dig deep holes into the snow cover (5–10 cm deep) to reach seeds of feather grass and wormwood *Artemisia*. They were followed by Shore Larks *Eremophila alpestris* and Common Redpolls *Carduelis flammea*, which collected the left-over seeds in the holes.

Although the Black Larks had congregated in a dense flock, unusually aggressive behaviour was observed: many males chased off others from holes that they had dug, and even applied targeted strikes to the body and head of approaching competitors. After the flock had moved on, we examined the feeding area carefully. Surprisingly, six dead Black Larks were found on the tunnelled ground (plate 31). Around the dead birds, bloodstains were visible on the snow, suggesting that they had been moving before they died. On closer inspection, the birds were found to have bleeding wounds on their heads, and the fresh blood suggested they had died very recently from their injuries, or had frozen to death after being weakened by excessive blood loss. Although we were not able to confirm this by direct observation, the aggressive behaviour observed earlier seemed to be the obvious cause of the injuries. No avian or mammalian predators were observed in the area on either day of observation.

Although the feeding behaviour of Black Larks in winter has been described before (Dolgushin *et al.* 1970), we are not aware of any photographic documentation. In addition, there is no mention in the literature of

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31. Black Lark *Melanocorypha yeltoniensis* presumably killed by another member of the flock, Korgalzhyn region, Kazakhstan, January 2011. This bird had severe injuries at the back of its head, and blood stains from the bird extended for more than 1 m from the corpse.

aggressive behaviour among wintering flocks. Black Lark mortality is known to increase during long, snowy winters (Dolgushin *et al.* 1970). It seems likely that the labour-intensive feeding behaviour we observed requires a high energy investment. Fierce defence of the seeds in the excavated holes (which function as a type of 'micro territory') against intruders looking for an easy meal might explain this aggressive behaviour. Similar behaviour has been observed under very different but equally challenging environmental conditions in the Raso Lark *Alauda razae*, where dominant males digging for *Cyperus* bulbs defended burrows (Donald *et al.* 2007).

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Wrens foraging in the tree canopy in harsh winter conditions

On 3rd December 2010, I observed a Wren *Troglodytes troglodytes* foraging c. 13 m above ground in a sunlit tree at Forge Dam, Sheffield. There was at least 30 cm of snow on the ground at the time, and I saw another Wren a short distance away at ground level, floundering on snow-covered twigs and clearly in difficulty. On 19th December, in similar conditions in the Botanical Gardens in Sheffield, I saw another Wren seeking food on a tree at c. 8 m above ground level. The mean 24-hour temperatures were -8°C and -4°C respectively.

Armstrong (1955) commented that Wrens feed most frequently at or near the ground in winter, tending to feed higher only as the leaves of deciduous trees open in the spring, while *BWP* also suggests that males will feed in the tree canopy only occasionally, in spring; I have found no mention of higher-elevation feeding in the winter (though see *Brit. Birds* 94: 602). These observations were presumably an adaptation by resident birds to the harsh weather, with invertebrate food being more easily obtained well above ground level.

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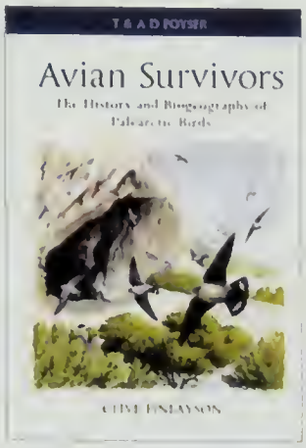
Reviews



Avian Survivors: the history and biogeography of Palearctic birds

By Clive Finlayson
Poyser, 2011
Hbk, 304pp, colour photographs, maps, histograms, tables
ISBN 978-0-7136-8865-8 Subbuteo code M20609
£50.00 *BB* Bookshop price £45.00

As a birder with a particular interest in biogeography, I was looking forward to reviewing this book, though from the enigmatic title was unsure what to expect. I found that it does not focus on recent changes but instead looks at the history of Palearctic birds over the very long term, at their current distribution and their climatic and ecological characteristics and relationships.

Introductory chapters which discuss changes since the Tertiary are followed by 15 species account chapters, which form the main section of the book. The analyses in these chapters are based on an appendix which lists the 862 breeding species covered, together with 12 characteristics for each, for example climates, latitudes, and Palearctic regions occupied. The compilation of this appendix would have required detailed information on the distribution of every species, presumably from regional handbooks, but none are cited. Each main chapter includes an introduction to the families within it, sections on climate, habitat, migration, fossils, a genus-by-genus account and conclusions. Species are discussed within their genera, some at length, others only briefly, for example: '*Dryocopus*: One species (14.29% of the world's species) occupies the Palearctic. The Black Woodpecker [*D. martius*] is a bioclimatic moderate omnivore of temperate (Latitude Category C) forests. It is a resident with a pan-Palearctic range that is discontinuous in the Western Palearctic.'

Despite their relevance, the geographical limits of the Palearctic chosen by the author are neither shown on the very poor map nor described in the text. He divides the Palearctic into Western, Central and Eastern regions, but the border between the first two passes through the White Sea; thus the Western Palearctic in this book is confusingly different from that in *BWP*. There are no distribution maps and I had to cross-refer to the *BWP* maps to clarify some of the author's points. Many tables are included, along with histograms of climatic tolerance and habitat occupation. However, the terms 'bioclimate' and 'climate' often appear to be synonymous, as do 'annual rainfall' and 'humidity'. A section of well-chosen colour photos depicts typical species with differing histories and characteristics.

More discursive final chapters cover climate and the history of Palearctic birds, island endemics, characteristics of the survivors of climate change, and the avifauna of the past, present and future. From them we learn that rarities do not make good island colonisers; and that the achievement of wide climatic tolerance by a species usually excludes others in its genus from that position. A second appendix categorises European Pleistocene fossil birds by period and frequency.

The author's basic argument in the book is that Palearctic birds are the toughened survivors of past extinctions, expert at surviving climate cycles by changing their ranges. He believes that they will respond in a similar manner again and is certain that few if any will go extinct as a result of future climate change. This controversial statement has been quoted in the national media as evidence that if the predicted climate change does occur, the birds will adapt and survive. I'm not so sanguine: species restricted to islands and mountains may be unable to change their ranges, nor may tundra species if their habitat becomes forest. There may also be indirect consequences as species face new competitors; for example, Sardinian Warbler *Sylvia melanocephala* is rapidly colonising Cyprus, apparently because of the now much milder winters, and where it spreads the Cyprus Warbler *S. melanothorax* declines and in some areas has disappeared. The author's opinion is also at variance with *A Climatic Atlas of European Breeding Birds* (Huntley *et al.* 2007, published by Lynx), which predicts that more than a quarter of European

species may be at high risk of at least regional extinction by the end of this century. However, he rightly stresses human population as a key adverse factor in the future of Palearctic birds: in my lifetime it has trebled, from 2.3 to 7 billion, with associated habitat loss and increased hunting/trapping. When combined with predicted climate change, the future for many species seems bleak.

Throughout there is lack of attention to detail, for example the unusual division of the genus *Oenanthe* has no citation; Harlequin Duck *H. histrionicus* is not named within its single species genus; some of the percentages/totals (e.g. *Ficedula*) are clearly wrong; and many citations are missing from the references. The text is also studious, factually dense and not easy reading. However, despite its faults, the book adopts a different, even unique approach, and is often thought-provoking. For readers who persevere, it also provides a wider understanding of the origins and relationships of the birds around us, and an appreciation that we see only a snapshot in a process of constant change over geological time.

Peter Flint

The RSPB Anthology of Wildlife Poetry

Selected by Celia Warren
A&C Black, 2011
Hbk, 168pp, colour and black-and-white illustrations
ISBN 978-1-4081-3118-3 Subbuteo code M21043
£16.99 *BB* Bookshop price £15.25

Poetry and nature go together as far back as it is possible to go. Some of the earliest poets in the young English language were some of its first birdwatchers. James Fisher memorably described how the accuracy of the ornithological observations in 'The Seafarer' poem (written down in the tenth century) led him to be sure that the – unknown – poet was a seasoned birdman with particular knowledge and experience of the Gannets of the Bass Rock. To this day it is hard to find a poet who *hasn't* written a bird poem.

Happily, this anthology won't make that task any easier. This is an attractive addition to the widening shelf of nature writing with two particular merits: it mixes birds with other wildlife and plants and it is beautifully illustrated. It would make an ideal starter collection. There is colour on most pages and a very wide selection of paintings and drawings accompany the poems. Greg Poole's Hobbies, Swifts and reeds in blue-green bright Somerset Levels make for a standout double-spread, illustrating poems by Christina Rossetti and Robert Browning.

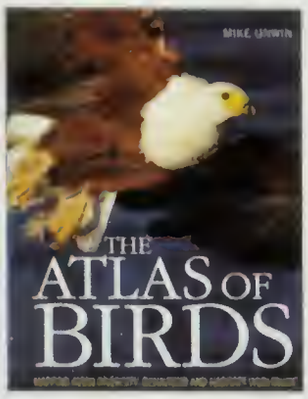
The 140 poems by around 100 poets chosen by Celia Warren have been selected mostly for their appeal to children, though there are many old friends for all ages to enjoy. Thomas Hardy, John Clare, Emily Brontë, William Wordsworth, Edward Thomas and Ted Hughes rub along with new poems from newish poets including rather too many (five, no-one else has more) from our anthologist. Many of the newer poems are short and eminently gettable. Almost all are fairly straightforward celebrations of what they describe. There are very few dead bodies in this book, no bird flu or oil slicks, habitat loss or climate change. Not that this makes the selection escapist.

If a single theme comes from the more than 200 years of poetry here, it would be that clear-eyed looking – hard, close attention to what is actually in front of you – is key to the making of a good poem. A few taste 'off': a Common Sandpiper poem has the call right but the legs too long, a few have no news to report (Tennyson's 'The Eagle' has always seemed superfluous to me), but many are worth having and mostly the anthologist's eye is clear and her ear is sharp. A Bullfinch is 'a flying peach', a young Adder 'a bootlace'. Warren has also included some recent poems of real value – like Kathleen Jamie's 'The Dipper', a poem from a poet who has brilliantly rewritten the poetic contract with nature in the last ten years: her tender but knowing reaching out towards wild things, seeking contact without possession, might be the best definition we have for the current flowering of nature writing and the mood of the times behind it. There are also less serious things to enjoy in the anthology. The title of John Hegley's poem '(Unbridled) Guillemot' says nearly all you need to know, but his funny lines capture some essence of Guillemot, and the Bass Rock poet of 'The Seafarer' would surely recognise the same species.

With all the current scientific talk of bird personalities, it is good to know that a poem of comic anthropomorphism can also intimate what it might be like to be inside a guillemot's head:

I'm a guillemot
I find the fishes tend to lose one-nil a lot
I'm a guillemot
I do my speccy reccy from my rocky window sill a lot
I'm a guillemot
Am I not?

Tim Dee



The Atlas of Birds: mapping avian diversity, behaviour and habitats worldwide

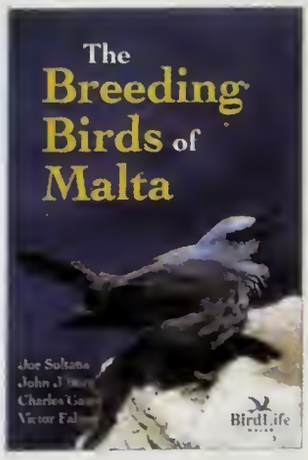
By Mike Unwin
A&C Black, 2011
Pbk, 144pp, many colour photographs, maps and diagrams
ISBN 978-1-4081-3470-2 Subbuteo code M20779
£16.99 *BB* Bookshop price £15.25

This book is an attractive, generously illustrated and colourful introduction to bird biology and conservation worldwide. Maps appear on most pages, showing the global distributions of different bird orders, different habitats, land-use systems, threats and conservation matters – in fact, almost anything that can be conveniently shown in map form. The book is divided into eight parts, the titles of which give some idea of the overall scope: Introduction to Birds, Where Birds Live, Birds in Order, How Birds Live, Birds and People, Birds Under Threat, Protecting Birds, Bird Table (a table of statistics for each country giving information on land area, human population, length of coastline, number of bird species, number of Ramsar sites and other details). The author is a wildlife writer, photographer and illustrator, and much of the information in the book is attributed to BirdLife International in Cambridge.

The entire book is laid out as a series of double-page spreads, each of which gives a few paragraphs of text, one or more maps and diagrams, and several bird photographs, all with extended captions. Picking a few topics at random, we have spreads on Feathers, Important Bird Areas, Australasia, Pigeons to Cuckoos, Finding Food, Flyways, Conflicts with Birds, Birds in Culture, Extinction, Infrastructure and Pollution, Campaigns and Conventions. From this short list, you will gather that the book covers a wide canvas, giving a bit about everything, and in fact a lot of information in limited space. Nevertheless, the text is friendly and readable, and the maps and diagrams are easy to understand.

It is difficult to judge who this book is aimed at, but anyone from interested teenagers to experienced birders could enjoy dipping into it. Some of the information assembled is not readily available elsewhere without a lot of digging around. Another attractive feature of the book is its price.

Ian Newton



The Breeding Birds of Malta

By Joe Sultana, John J. Borg, Charles Gauci and Victor Falzon
BirdLife Malta, 2011
Hbk, 379pp, many colour photographs, diagrams and maps
ISBN 978-99957-33-14-8 Subbuteo code M21111
£34.95 *BB* Bookshop price £30.00

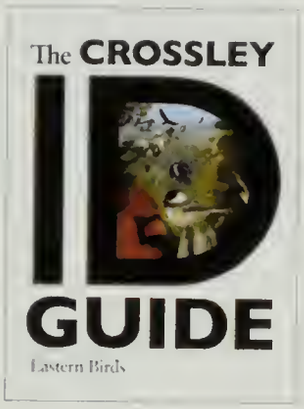
BirdLife Malta is an extraordinary organisation. Since time immemorial, the Maltese have trapped and shot birds on a scale that has to be seen to be believed: it is deeply embedded in their culture. Yet, through the efforts of BirdLife, aided by European legislation, the scale of the problem has been much reduced. Complementing and supporting their direct conservation work, the ornithologists of Malta have engaged in a range of studies of their birds and this book is one of the products of that. It is packed with information, provided

through concise but readable text, masses of photographs of the birds, their eggs, nests and habitats and well-designed maps and graphs.

The introductory material comprises a comprehensive description of the ecology of the Maltese islands, a brief review of their avifauna, an account of the past and continuing threats and information on the work of BirdLife Malta. The bulk of the book is made up of full accounts of the 19 regular breeding species. On average there are 13 pages for each species, starting with information on its range, characteristics, voice and diet, followed by comprehensive reviews of its status, habitat, breeding behaviour, history, trends and conservation. Each account also includes the results of studies of the species in Malta: the information is, of course, different for each species but generally covers longevity, age of first breeding, movements, moult, ectoparasites, time of breeding, clutch size, breeding success, fledging period, foraging and diet. Finally, there are briefer accounts of the 27 species that have bred irregularly since 1950 and of eight introduced or feral species.

The book is not only packed with information but it is well-designed, making it a delight to read. I recommend it without reservation to those with any interest in the birds of the Mediterranean. If you are one of those who has hesitated over visiting Malta because of its dreadful history of shooting and trapping, buy the book, be inspired by the book to make that visit and do what you can to support the fine work of BirdLife Malta.

Jeremy Greenwood



The Crossley ID Guide: Eastern Birds

By Richard Crossley
Princeton University Press, 2011
Pbk, 544pp, many colour photos, maps
ISBN 978-0-691-14778-9. Subbuteo code M20884
£24.95 *BB* Bookshop price £22.49

This book on North American birds was long anticipated, launched with a fanfare of publicity, and promised to be, to quote the first word of the back-page blurb: 'revolutionary'. For anyone who missed the publicity over its launch, it uses a host of digitally manipulated photographs of each species arranged against a single background, with no paintings and minimal text.

Three things become obvious when you first see the book, even before opening it: the word 'field' is missing from the title; the volume covers only 'Eastern Birds'; and the book itself is decidedly hefty (over 1.6 kg in weight). This is not a book that many people will even consider taking into the field, and if you head to the west coast you'll need another guide (although the definition of 'eastern' in this volume goes right to the foothills of the Rockies).

The plates themselves are impressive. Most species get a full page, although some get only half or a quarter of a page, and each plate shows multiple photographs of the named species (there are 30 or more individuals on some plates), set against an appropriate background. There is an awful lot going on in some plates and although the reviewer uses reading glasses only occasionally, they were required frequently when looking at this book. The sheer volume of work involved is astounding. Almost every photograph has been taken by the observer, and the post-production of the photos is equally impressive. Despite the varying light conditions in which the photos must have been taken, the plates all look consistent and pleasing to the eye. The backgrounds do their job well, giving a good feel of the habitats in which the birds are likely to be encountered, although occasionally they are a little distracting. There are little surprises to be found on almost every plate, with birds depicted doing all sorts of activities, in all sorts of plumages and in all sorts of poses. The overall impression gained from each plate is to get a real feel of the species, just as the author intended.

This leads one to consider the long-running debate of photographer versus artist. A skilled artist can choose the pose and the plumage and emphasise the diagnostic feature in a way that a photograph can't, although Crossley's myriad of photos show the appearances of a species in a way that has rarely been attempted before. Those photos of the back end of a sparrow flying away from the observer, the sort that many photographers might delete, have been put to good use here. The plates do, however, look oddly familiar at

times: the birds-in-habitat plates recall the paintings by the late Donald Watson in *The Oxford Book of Birds* (first published in 1965), while the many illustrations of the same species in different postures and in flight recall Peter Hayman's work, which first appeared in *The Mitchell Beazley Pocket Guide to Birds* in 1982.

The emphasis is very much on the pictures and the text is brief, a few lines at the base of each page, and written in a chatty, non-technical style (e.g. the Ovenbird *Seiurus aurocapilla* account states that 'arguably no other bird has as much character as this punk rocker'). To save space, extensive use is made of the four-letter alpha-code abbreviations, which makes some of the comparisons to other species rather obscure for the uninitiated.

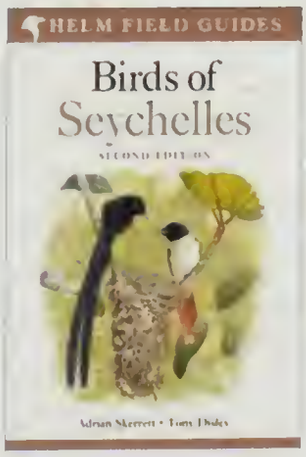
The order of species is also controversial, dropping the traditional systematic list and grouping birds as swimming waterbirds, flying waterbirds, walking waterbirds, upland gamebirds, raptors, miscellaneous larger landbirds, aerial landbirds, and songbirds. This is not really a surprise, since Crossley was one of six authors proposing this new order in *Birding* in 2009 (see http://www.aba.org/birding/v41n6p44.pdf). As the authors of this paper noted themselves, attempts to produce identification guides using anything other than systematic lists have been largely unsuccessful. It remains to be seen whether this utilitarian order will be any more useful.

So is the book revolutionary, as it claims? The logic for the claim is explained in depth on the author's website (www.crossleybooks.com): 'the Crossley ID Guide was... created by following the principles of how we teach kids and scientific research on how the brain works... designed – whether you like its concept or not – to make you a better birder.' At the heart of these claims are the ideas that we learn through repetition (hence the multiple images) and learning in context (hence the birds shown in habitats). But can a mere book provide these inputs? Can a book really replicate the process of learning in the field?

Many hundreds of reviews and thousands of words have already been written about this book. The response has been largely enthusiastic and occasionally passionately favourable, although a few reviewers have stated that they 'don't get it'. An unscientific trawl of North American birding blogs would suggest that very few birders are throwing away their copies of *Sibley* just yet, but many birders are adopting the book as one of their first and most important identification aides. Yet many reviewers have raised a valid point – what exactly is the book for? It seems to fall between several stools. It's too big to use in the field, yet its greatest value seems to be as a field guide; it seems to be aimed at improving and educating novices, yet it seems to be most popular with the birding expert. If it is best as a resource for birders' libraries and for poring over at leisure, perhaps a larger-format, glossier edition with slightly sharper plates might have been the route to follow.

Personally, I'm not really sure that any identification guide produced on paper can ever claim to be revolutionary any more (although the revolutionary multimedia guide seems no nearer). That said, this is still a very impressive, attractive, thought-provoking book which has quickly established itself as a must-have for many birders. Is it the best photo guide ever produced?: almost certainly. And there is a companion volume on the Birds of Great Britain in the pipeline, something that will be eagerly anticipated by most birders.

Mike Pennington



Birds of Seychelles

By Adrian Skerrett and Tony Disley
Christopher Helm, 2011
Pbk, 176pp, 65 colour plates
ISBN 978-1-4081-5151-8 Subbuteo code M21087
£24.99 *BB* Bookshop price £22.49

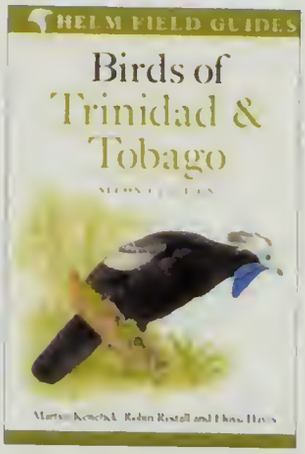
This book is a condensed version of the Helm guide published in 2000 (which was co-authored with Ian Bullock). That guide became the only modern book to cover every species recorded in the Seychelles (it is still available and provides a huge resource of information). In this new volume the text has been considerably reduced and rewritten, making it more concise and focused towards identification. It highlights key identification features, including habitat, distribution, status and voice. The original plates have been repeated but many

have been resized and a number of new images have been added, with 12 additional plates too; in total there are now around 1,000 illustrations.

Species order follows the traditional Voous sequence (used by the African Bird Club for many years until its recent decision to follow the IOC List), and an appendix lists names in French and Creole as well as their English equivalent. Brief notes describe each of the main islands and Important Bird Areas, and although range maps are lacking the author uses a table comprising 16 distribution bars in four different colours to indicate the status of each species on each of the islands; a good idea that works well.

This is a handy book that will take up very little room in your bag. It is really designed for field use but I expect that many people will still want the original to read in their hotel room.

Keith Betton



Birds of Trinidad and Tobago (2nd edn)

By Martyn Kenefick, Robin Restall and Floyd Hayes
Christopher Helm, 2011
Pbk, 272pp, 115 colour plates, maps
ISBN 978-1-4081-5209-6 Subbuteo code M19853
£24.99 *BB* Bookshop price £22.49

This is the second edition of the book which first appeared in 2007. Publishers often push out a new version of a book with relatively little effort to improve on what has gone before – but that is not the case here. If you have that first edition, then you probably don't need to buy a new copy, but for first-time buyers, this is the edition to look for as it includes better illustrations and updated text.

In typical field-guide style the colour plates on the right-hand page are clearly annotated, feature around five species and face text on the left page. In the first edition some of the plates were poorly laid out with too much empty space on some, while others were crowded. An extra 16 pages have helped to allow eight more plates to be included. Some of Robin Restall's excellent illustrations have been taken directly from his hefty two-volume *Birds of Northern South America* but others have been commissioned for this second edition.

The text has been updated by Martyn Kenefick and Floyd Hayes and provides information on plumage, voice, similar species and status. The book is very thorough and all 471 species on the Trinidad and Tobago list are dealt with, nearly 200 of these being vagrants. Even formerly resident species such as Horned Screamer *Anhima cornuta* are included – despite none being seen since 1964. Care has been taken to show migrants (e.g. the North American wood-warblers) in all possible plumages that might be encountered. Nomenclature mainly follows the AOU and South American Checklist Committee.

The authors have chosen not to include distribution maps, which is a shame, but the truth is that there are parts of south Trinidad rarely if ever visited for a whole variety of reasons; restricted access and safety being just two of these. However, the text does explain on which island each species can be seen. A systematic checklist is given at the back, as is a list of species for which descriptions are required by the local records committee. There are also sections describing the main sites to visit on both islands.

Keith Betton

Finding Birds in Estonia

By Dave Gosney
www.easybirder.co.uk, 2011
DVD (85 mins) and 36-page booklet
ISBN 978-1-907316-30-2/
978-1-907316-29-6
Subbuteo code V80092
BB Bookshop price £20.00

Since Estonia gained its independence from the former Soviet Union it has been a regular destination of Finnish birders and, with the advent of budget flights to Tallinn, British birders can now get there almost as easily and cheaply. Estonia is a wonderful country which provides fabulous birding during the migration seasons and this is a good introduction to some of the key sites.

RR

News and comment

Compiled by Adrian Pitches

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

British Birds conservation grants

The *British Birds* Charitable Trust – in consultation with the directors of *BB* – has approved grants totalling £6,000 to five conservation causes at home and abroad.

The recipients are as follows: the BTO for its pioneering research into the African wintering grounds of the fast-declining Common Cuckoo *Cuculus canorus*; the Wildfowl and Wetlands Trust Madagascar Pochard *Aythya innotata* project; the RSPB's rat eradication programme on the Pacific island of Henderson; A Rocha's conservation programme for the European Roller *Coracias garrulus* in France; and grant aid for young people staying at bird observatories in the UK.

Prof. Richard Chandler, chairman of the *British Birds* Charitable Trust, said: 'A decade after *BB* was rescued from potential closure, the journal is now on a sound financial footing and has increasing subscriber numbers. It has always been our intention to donate any surpluses to worthwhile conservation causes and we are delighted to make these grants totalling £6,000 in our 105th year of publication.'

In the summer of 2011, BTO scientists trapped and satellite-tagged five male Cuckoos in an attempt to track their migration south to their wintering grounds in central Africa. The research has already produced excellent results with all five birds (Clement, Chris, Kasper, Martin and Lyster) successfully tracked south to the equatorial forests of the Congo (see www.bto.org/science/migration/tracking-studies/cuckoo-tracking). In 2012 *British Birds* will sponsor another satellite-tracked Cuckoo, which will be called 'BB'.

The Critically Endangered Madagascar Pochard is a diving duck that was considered extinct in the wild until its rediscovery on a lake in northwest Madagascar in 2006. Protection of the tiny remaining population and research into its ecology has been led by the WWT.

Henderson Island is a UK Overseas Territory in the Pitcairn group. It's one of the most remote islands in the world – but not sufficiently remote to avoid invasion by ship-borne rats. Once home to an estimated five million pairs of nesting seabirds, it now hosts barely 40,000 pairs – and 95% of the eggs and chicks are taken by rats every year. The RSPB – with UK Government financial assistance – is carrying out a £1.5m rat eradication programme using poison baits, which will hopefully allow the re-creation of a seabird paradise.

A Rocha is a conservation charity with a Christian ethos. It is working with farmers in southern France in one of Europe's last strongholds for the magnificent multi-coloured Roller. The *BB* grant aid will help to pay for nestboxes and advice leaflets for farmers to help conserve this wonderful bird.

Encouraging young people to pursue their interest in birds and birdwatching is crucial, as they are the next generation of conservationists. *BB* grant aid will help up to six young people with the costs of a stay at a bird observatory on the British coast and/or expenses incurred learning to be a bird ringer. If you know anyone aged 16–18 at your bird club or RSPB group who would benefit from such a grant, please e-mail adrianpitches@blueyonder.co.uk for details of how to apply.

Update from Henderson Island eradication operation

And here's the latest bulletin from the RSPB about the rat eradication operation on Henderson Island (see *Brit. Birds* 103: 428–444):

'The RSPB is delighted to announce that its ground-breaking operation to restore Henderson Island in the Pitcairn Overseas Territory has now taken place. At 43km², Henderson is the third-largest island eradication ever undertaken. Whilst we cannot be certain that the rats have been eradicated, we are optimistic of success and eagerly await a monitoring expedition in 2013 which will hopefully confirm that Henderson is rat-free.

'The biggest challenge was the island's extreme remoteness in the centre of the South Pacific, and the difficulty of getting the team and their equipment there. The RSPB formed a unique partnership with two other restoration projects to share equipment and expertise. In May, the MV *Aquila* was loaded with two helicopters in Seattle, USA, before setting out to complete a remarkable 27,000-km voyage of conservation via Palmyra Atoll (USA), the Phoenix Islands Protected Area (Kiribati) and then Henderson Island.

'MV *Aquila* arrived at Henderson in August and baiting to remove the rats began almost straight away. Two helicopters, operating from the

converted deck of the ship, dropped rodenticide from bait buckets slung beneath. These buckets use small petrol-powered motors to fire the bait pellets out in a 80-m-wide swathe. Using GPS technology, the two highly experienced pilots could then spread the bait methodically across the entire island.

'The first bait drop took three days, with a repeat drop taking place a week later to ensure that all rats had access to bait. This was the first time that such a boat-based operation had been implemented, and it is hoped that this success will lead to many similar operations. The possibilities to link up future island restoration projects and achieve large-scale conservation benefits are significant.

'Four species of landbird are unique to Henderson: Henderson Crake *Porzana atra*, Henderson Lorikeet *Vini stepheni*, Henderson Reed Warbler *Acrocephalus taiti* and Henderson Fruit Dove *Ptilinopus insularis*. Of these species, only the crake was at risk from the poison and a team arrived on Henderson one month before the MV *Aquila* to establish a captive population of Henderson Crakes. The team, including an aviculturist from the Royal Zoological Society of Scotland, was successful with the captive population in that they even managed to breed them in captivity, a world-first, releasing six extra chicks at the end of the operation.

'Some mortality was observed in the wild crake population, but they have since been breeding vigorously and it is anticipated that the population will increase beyond its pre-operational level in the absence of rat predation (the crakes had previously been losing annually around a quarter of their chicks to rat predation within one week of hatching). The team monitored for rat presence and reported no signs of rats in the 11 weeks they spent on Henderson, after the baiting had taken place.

'Many thanks to all who helped us to raise the £1,450,000 needed to carry out the project. We hope to update you with good news in 2013.'

(Contributed by David Agombar)

English Hen Harriers 'four steps' from extinction

The Hen Harrier *Circus cyaneus* is the bird most likely to become extinct in England because of human pressure, says the RSPB. A joint survey of the English uplands in 2011 by the RSPB and Natural England found that only four nesting pairs of Hen Harrier successfully raised young, all on a single estate in the Forest of Bowland, Lancashire. This is believed to be the lowest population in England since they recolonised in the 1960s following extinction in the late nineteenth century. Historically, the Hen Harrier was widespread in England.

A government-backed report – the Hen Harrier Conservation Framework – proved that illegal persecution on driven-grouse moors is the main factor restricting the growth of the Hen Harrier population in the UK. The framework reported that England's uplands could support at least 320 pairs of this bird of prey. Hen Harriers disappearing from England for a second time will see the Government break its recent commitment in the revised England Biodiversity Strategy to avoid any human-induced extinctions before 2020.

Hen Harriers were formerly widespread in the UK, but persecution forced the mainland extinction of the Hen Harrier in Britain, and by 1900 it was confined to Orkney and the Outer Hebrides. In the 1940s, it recolonised mainland Britain, and two decades later it recolonised England.

Hen Harriers sometimes prey on Red Grouse *Lagopus lagopus* on upland shooting estates, making them unpopular on many grouse moors. Given the bird's potential for extinction in England, the RSPB and Natural England are appealing to grouse-moor owners to support techniques being trialled to reduce predatory impacts on grouse from harriers.

A demonstration partnership project at Langholm Moor, in the Scottish Borders, is looking at the effectiveness of a measure known as 'diversionary feeding', where an alternative food supply is left for the harriers, so that the birds have a source of food and won't be tempted to take grouse chicks. Early results look promising, enabling the birds to nest successfully without causing alarm to grouse-moor owners and managers. Preliminary results show that no grouse chicks have been brought to monitored Hen Harrier nests in four years at the study site.

Martin Harper, the RSPB's Conservation Director, said: 'With only four pairs of Hen Harrier in England, this bird has only four steps before extinction and the Government has very little time to act to prevent breaking their promise.'

Scotland's White-tailed Eagles soar to new heights

Happier news on raptors came from north of the Border where 2011 has proved another record-breaking year for breeding White-tailed Eagles *Haliaeetus albicilla*, despite heavy storms throughout the breeding season. Recent survey figures for the 2011 breeding season reveal that there were 57 territorial pairs in Scotland, an increase of 10% on the previous year. A total of 43 young fledged successfully from these nests.

Mark Caunt

32. White-tailed Eagle *Haliaeetus albicilla*, Scotland, June 2011.

White-tailed Eagles finally became extinct in Britain at the beginning of the twentieth century because of human persecution. After an absence of over half a century, a reintroduction programme began in 1975 on the Isle of Rum in the Inner Hebrides. Since then, the population has been steadily recovering, and conservationists believe that there are now as many 'flying barn doors' in the UK as there were 150 years ago.

The successful breeding season on the west coast of Scotland comes as a further 16 White-tailed Eagle chicks from Norway were released in Fife in August. The chicks are part of a six-year project, now entering its final year, to increase and expand the range of this iconic species into its former haunts in the east of Scotland.

Duncan Orr-Ewing, Head of Species and Land Management at RSPB Scotland, said: 'The White-tailed Eagle is part of Scotland's rich natural heritage and it is fantastic to see them back where they belong and gradually increasing in numbers and range on the west coast. They are improving biodiversity in this country and bringing in important economic benefits to the communities they soar above. Now, with the east-coast reintroduction entering its final year, we are anticipating the first steps towards the establishment of a breeding population of sea eagles on the other side of Scotland. There is plenty of suitable habitat and natural wild prey to support a healthy population.'

Vote to strengthen raptor protection in 2012

An e-petition on the Downing Street website seeks to gain further protection for the raptor populations of England in line with recent legislation introduced in Scotland. Its backers are calling on the Government to introduce an offence of 'vicarious liability' for landowners whose employees are taken to court for persecution of raptors.

Here's the e-petition wording: 'Scotland, recognising that those who persecute birds of prey frequently do so at the direction of their employers or others with vested interests, has introduced an offence of vicarious liability, the purpose of which is to bring those parties to justice. This petition calls on the government to introduce an offence of vicarious liability to bring to justice those who direct or turn a blind eye to raptor persecution in England. As an indication of how bad things are, in the last year only four pairs of Hen Harriers successfully reared chicks in England, fourteen Peregrine Falcon territories failed on grouse moors in the Forest of Bowland, and only one successful Goshawk nest was recorded in the Derwent Valley, Derbyshire. Current legislation is not enough to deter those who break the law and destroy our heritage; the introduction of vicarious liability would hit those directing the slaughter.'

The e-petition requires 100,000 signatures to trigger a response by the responsible Government department (Environment, Food and Rural Affairs). In mid December the signature count was 4,300. The e-petition runs until November 2012. Please add your name and alert all fellow birders to the campaign. If only 10% of the RSPB membership signed up, the target would be met overnight. The link is http://epetitions.direct.gov.uk/petitions/23089

Britain's most imprisoned egg-collector is jailed again

A serial egg-collector has extended his criminal record as Britain's most imprisoned egg-collector by being sentenced to yet another jail term, for six months, following conviction for stealing and possessing wild birds eggs, including those of some of the rarest and most threatened birds in the country.

Matthew Gonshaw, 49, of Bow in East London, has already been jailed on three previous occasions for similar offences and on 13th December he pleaded guilty at Thames Magistrates Court to another ten charges. Gonshaw's home was raided by officers from the Metropolitan Police and RSPB Investigations unit on 2nd June 2011. Nearly 700 eggs were found at the premises.

Gonshaw faced ten charges, including taking five Golden Eagle *Aquila chrysaetos* eggs and 12 Avocet *Recurvirostra avosetta* eggs from the wild, and possessing eggs from the following Schedule 1 species: Golden Eagle, Osprey *Pandion haliaetus*, Peregrine Falcon *Falco peregrinus* Red Kite *Milvus milvus* and Avocet. The remaining wild birds' eggs were all held illegally but were from species not covered by Schedule 1 of the Wildlife and Countryside Act 1981.

RSPB Investigations Officer Mark Thomas said: 'We believe that the introduction of custodial sentences in 2001 for the most serious wildlife crime cases has forced most of Britain's egg-collectors to throw in the towel. But it is clear that Gonshaw's obsession drives him to target the rarest birds in Britain, where the prospects of jail or depriving the country of threatened species are simply dismissed.'

And the long arm of the law extends from Britain to Bulgaria

A tip-off to the RSPB has led to an international wildlife-crime operation and a raid on the home of an Englishman in Bulgaria, where a collection of eggs was seized. Officers from the RSPB – and its Bulgarian partner BSPB – assisted Bulgarian police with the raid, in the coastal city of Bourgas. The case – the first of its kind in Bulgaria – has involved information being passed from the RSPB to the Bulgarian authorities via the UK National Wildlife Crime Unit (NWCU).

Guy Shorrock, an RSPB investigations officer, said: 'We've been investigating this lead with keen interest. We're delighted that this international operation has led to the seizure of wild birds' eggs. Five clutches of wild birds' eggs were recovered, including Griffon Vulture *Gyps fulvus*, Collared Pratincole *Glareola pratincola* and Ortolan Bunting *Emberiza hortulana*. It is disturbing that a collection of wild birds' eggs has been seized in Bulgaria, which has so many threatened and vulnerable species. We are very concerned that countries like this may be vulnerable to egg-collecting as they have no history of investigating these types of offences.'

Announcements

BB Bird Photograph of the Year 2012

The 36th *BB* Bird Photograph of the Year competition is free to enter and, as usual, seeks to recognise the best and/or the most scientifically interesting photographs of Western Palearctic birds taken during 2011. In addition to the main award, there is a digiscoping section too. Up to three images may be submitted and, for full details of the rules and how to submit entries, go to www.britishbirds.co.uk/about/bird-photograph-of-the-year

The competition will again be sponsored by Anglian Water in 2012, to whom we remain extremely grateful for providing a cash prize of £1,000 for the overall winner. Collins, Helm/Bloomsbury and the Eric Hosking Charitable Trust will continue their long-term support of the Award too. The winning entries will be exhibited at the British Birdwatching Fair in August, where the awards will be presented.

The closing date for the 2012 competition is 1st April 2012.

Changes to the *BB* list of names

Following taxonomic changes to the British List announced in September by the BOURC's Taxonomic Subcommittee (http://onlinelibrary.wiley.com/doi/10.1111/j.1474-919X.2011.01155.x/full), the *BB* list of Western Palearctic birds has been updated for the beginning of *BB* Vol. 105 – go to www.britishbirds.co.uk/birding-resources/the-british-birds-list to download the revised list.

Recent reports

Compiled by Barry Nightingale and Harry Hussey

This summary of unchecked reports covers early November to early December 2011.

Headlines Many of the rarities were obliging long-stayers, including a Western Sandpiper in Norfolk, Sharp-tailed Sandpiper in Avon, Greater Yellowlegs in Northumberland and a Veery in Highland, not to mention the Northern Waterthrush in Scilly, which, by 1st December, had extended its stay to 77 days. An elusive Blackpoll Warbler in Kent, however, was somewhat more difficult to catch up with. Influxes included at least 21 Hume's Warblers together with a further 18 Dusky Warblers, 13 Desert Wheatears and six Olive-backed Pipits. There were also typically late records of Pallid Swift and Pied Wheatear, and two more Red-flanked Bluetails to add to the year's already impressive tally. Tundra Bean and Eurasian White-fronted Geese were widespread in unexpected locations and there was also an influx of Common Cranes.

'Tundra Bean Goose' *Anser fabalis rossicus* There was a widespread influx across Britain from mid November onwards, with the size of many flocks breaking local records, examples being 158 at Loch of Strathbeg (North-east Scotland), 100 at Wainfleet (Lincolnshire), 90 at Newtonhill (North-east Scotland), 76 at Calvo (Cumbria) and 59 on Fair Isle. Small numbers were recorded in Ireland, with a peak of six at Lurgangreen (Co. Louth) on 3rd December. These Bean Geese were often accompanied by exceptional numbers of Eurasian White-fronted Geese *Anser a. albifrons* at locations where large flocks are unusual, including 142 at Spurn (Yorkshire) and 240 at Inverkeilor (Angus & Dundee). Ross's Goose *Anser rossii* In north Norfolk presumably one roaming individual at several localities between 15th November and 6th December, then two at Berney Marshes (Norfolk), 11th December. Elsewhere, Embleton (Northumberland), two, 15th–27th November; Carrbridge/Dulnain (Highland), 16th November. Cackling Goose *Branta hutchinsii* Lissadell (Co. Sligo), two, 10th November; Torr Resr (Somerset), 12th November to 10th December; Carr Mill Dam (Lancashire & N Merseyside), 14th November; Islay (Argyll), two, 15th November, four, 16th, one remaining to 2nd December; Newport Wetlands, 13th–19th November, same Goldcliff Pill (both Gwent), 24th November; Belmullet (Co. Mayo), 7th December. Red-breasted Goose *Branta ruficollis* Exminster Marshes/Bowling Green Marsh/Topsham (all Devon), long-stayer to 4th December; West Mersea, 14th–21st November, same Old Hall Marshes (both Essex), 22nd November and 3rd–11th December. American Wigeon *Anas americana* Long-stayers at Dawlish Warren (Devon) to 11th December, Wellington GP (Herefordshire) to 12th November and Rutland Water (Rutland & Leicestershire) 23rd–28th November (when killed by Great Black-backed Gull *Larus marinus*); Anglers CP/Wintersett Resr (Yorkshire), 9th November to 10th December; South Uist (Outer Hebrides), 15th November to 7th December; Castle Loch/Kirk Loch/Lochmaben (Dumfries & Galloway), 17th November to 8th December; Saleen (Co. Cork), 18th–20th November. Blue-winged Teal *Anas discors* Long-stayer, North Bull (Co. Dublin) to at least 10th December; Tacumshin (Co. Wexford), 21st–27th November; St Mary's (Scilly), 27th November to 10th December; Longham Lakes (Dorset), 3rd–11th December. Ferruginous Duck *Aythya nyroca* Long-stayers at Dinton Pastures (Berkshire) to 4th December and Cockshoot Broad (Norfolk) to 12th November; also Longham Lakes, 3rd–5th December. Lesser Scaup *Aythya affinis* Marden Quarry (Northumberland), long-stayer to 10th December; Anglers CP, 9th November to 1st December; Rahasane (Co. Galway), 14th November; Wimbleball Lake (Somerset), 9th–11th December. King Eider *Somateria spectabilis* Burghead (Moray & Nairn), long-stayer to 14th November, with it or another seen on 11th December. Surf Scoter *Melanitta perspicillata* Long-stayer, Ballinskelligs (Co. Kerry) to at least 20th November; Largo Bay (Fife), 12th November; Rathlin Island (Co. Antrim), 12th November; Hurst (Hampshire), 21st November; St Ives (Cornwall), two, 4th December; Dawlish Warren, 10th December. Bufflehead *Bucephala albeola* Helston Loe Pool (Cornwall), long-stayer to 11th December.

White-billed Diver *Gavia adamsii* St Combs (North-east Scotland), 13th November; South Uist, 14th–16th November.

Night Heron *Nycticorax nycticorax* Abbeyfeale (Co. Kerry), 25th November. Cattle Egret *Bubulcus ibis*

Long-stayers at Thorney Island (Sussex) to 27th November and Blakeney (Norfolk) to 24th November (presumed same at Salthouse, Norfolk, 28th–29th November); Lydney (Gloucestershire), 10th November to 6th December; Drumdowney Upper (Co. Kilkenny), 12th November; Easington (Yorkshire), 15th November; Bassenthwaite Lake (Cumbria), 16th November; Tiree (Argyll), 17th–21st November; Hengistbury Head (Dorset), 24th–26th November; Christchurch Harbour (Dorset), 25th–27th November; Hillsborough (Co. Down), 26th November to 10th December; Landguard (Suffolk), 2nd December. **Great White Egret** *Ardea alba* Reported from Buckinghamshire, Co. Carlow, Carmarthenshire (three), Cheshire & Wirral, Cornwall, Cumbria, Essex, Gower, Greater London, Hampshire, Kent (up to six), Lancashire & N Merseyside, Leicestershire & Rutland, Lincolnshire, Co. Mayo, Norfolk, Nottinghamshire, Pembrokeshire, Shetland, Somerset (five), Suffolk, West Midlands, Wiltshire and Worcestershire. **Purple Heron** *Ardea purpurea* Leven (Fife), 14th–15th November. **Glossy Ibis** *Plegadis falcinellus* Long-stayers at Stanpit Marsh (Dorset), to 6th December and Fingringhoe Wick (Essex), to 7th December; Plymouth (Devon), 10th–16th November; St John's Lake (Cornwall), 10th–13th November; Wacker Quay (Cornwall), 11th November; Stodmarsh, 11th–17th November then Dungeness (both Kent), 18th–26th November and 4th December; Willington GP (Derbyshire), 12th November; Burton Mere Wetlands (Cheshire & Wirral), 12th–14th November; Inch (Co. Cork), 12th November; Malltraeth (Anglesey), 15th–20th November; Minsmere (Suffolk), 27th November.

Pied-billed Grebe *Podilymbus podiceps* Little Island (Co. Cork), 11th December.

Northern Harrier *Circus cyaneus hudsonius* Long-stayer (2CY male) at Tacumshin to at least 19th November, with a juvenile at North Slob on 13th November (both Co. Wexford). **Pallid Harrier** *Circus macrourus* Long-stayer at Power Head (Co. Cork) to at least 3rd December, with two there on 12th and 16th–17th November; Lough Corrib (Co. Galway) 5th November to 11th December; Ballycotton (Co. Cork), 15th November; Lizard (Cornwall), 15th November. **Gyr Falcon** *Falco rusticolus* Power Head, 14th November; Findhorn Valley (Highland), 20th November; Scorra Dale (Orkney), 2nd December.

Common Crane *Grus grus* There was a notable influx of Cranes, with up to 33 in Cornwall, including a flock of 24, which later moved to Devon, then Hampshire. Smaller flocks of up to eight birds were widely reported, including a lingering group of seven at Boyton/Gedgrave (Suffolk) to 11th December. In Ireland, 15 near Castletownroche, 12th–13th November; 14 near Ballincollig, 13th November; 19 near Midleton, 13th–21st November (all Co. Cork), plus singles and flocks of up to five reported from at least eight further sites.

Killdeer *Charadrius vociferus* Sherkin Island (Co. Cork), 10th November. **American Golden Plover** *Pluvialis dominica* Lewis (Outer Hebrides), long-stayer to 13th November; Ardmore Point, Lough Neagh (Co. Armagh) 13th November; Ythan Estuary (North-east Scotland), 20th November; Myroe Levels (Co. Derry), 27th November. **Semipalmated Sandpiper** *Calidris pusilla* Chew Valley Lake (Avon), 9th–20th November; Harris (Outer Hebrides), 10th November; Greatham Creek, long-stayer, 11th–13th November, presumed same Seal Sands, 16th, and Saltholme Pools (all Cleveland), 22nd–28th November, again 5th December. **Western Sandpiper** *Calidris mauri* Cley, 28th November to 11th December, also Blakeney Point (both Norfolk), 28th November. **Least Sandpiper** *Calidris minutilla* Blackrock Strand (Co. Kerry), 21st November to 11th December.

Rich Andrews

Rich Andrews

33. Juvenile Sharp-tailed Sandpiper *Calidris acuminata*, Chew Valley Lake, Avon, November/December 2011, with Semipalmated Sandpiper *C. pusilla* (and Northern Lapwing *Vanellus vanellus* and Dunlins *C. alpina*) in right-hand photo.

White-rumped Sandpiper *Calidris fuscicollis* Harris, two, 10th November; Ballycotton, 15th November; West Canvey Marsh (Essex), 18th November. Baird's Sandpiper *Calidris bairdii* North Ronaldsay (Orkney), long-stayer to 18th November. Sharp-tailed Sandpiper *Calidris acuminata* Blagdon Lake (Avon), 18th November, same Chew Valley Lake, 19th November to 10th December. Wilson's Snipe *Gallinago delicata* St Mary's, long-stayer to 24th November, then again 11th December. Long-billed Dowitcher *Limnodromus scolopaceus* Blagdon/Chew Valley Lake, two long-stayers to 11th December, also Catcott Lows (Avon), 30th November; Wigtown (Dumfries & Galloway), long-stayer to 15th November; Mucking (Essex), 19th November. Spotted Sandpiper *Actitis macularius* Long-stayers at Plym Estuary (Devon) and Chew Valley Lake, both to 11th December; Lyme Regis (Dorset), 18th–27th November; Ballyduff Upper (Co. Waterford), 27th–28th November; Cork City (Co. Cork), 27th November; Nanny Estuary (Co. Meath), 28th November to 3rd December; Heybridge GP (Essex), 2nd–4th December. Greater Yellowlegs *Tringa melanoleuca* East Chevington/Hauxley/Druridge Bay (all Northumberland), 12th November to 11th December. Lesser Yellowlegs *Tringa flavipes* Long-stayers Tresco (Scilly), to 15th November and Alaw Estuary (Anglesey), to 22nd November.

Tom Tams

34. First-winter Greater Yellowlegs *Tringa melanoleuca* (and Grey Phalarope *Phalaropus fulicarius*), Hauxley, Northumberland, November 2011.

Bonaparte's Gull *Chroicocephalus philadelphia* Blackdog (North-east Scotland), 27th November. American Herring Gull *Larus smithsonianus* Baltimore (Co. Cork), 27th November to 10th December. Forster's Tern *Sterna forsteri* Long-stayer, Galway Bay (Co. Galway) to at least 27th November.

Yellow-billed Cuckoo *Coccyzus americanus* Belated news of one at Ballycogley (Co. Wexford), 27th October. Pallid Swift *Apus pallidus* Portland Bill (Dorset), 12th November.

Brown Shrike *Lanius cristatus* Tiree (Argyll), long-stayer to 20th November. House Crow *Corvus splendens* Long-stayer, Cobh (Co. Cork), until at least 11th December. Penduline Tit *Remiz pendulinus* Oare Marshes (Kent), 16th November; Grove Ferry (Kent), two, 20th November, one to 25th; Leighton Moss (Lancashire & N Merseyside), 21st November; Dungeness, 24th November to 8th December. Red-rumped Swallow *Cecropis daurica* Winterton (Norfolk), 18th November.

Hume's Warbler *Phylloscopus humei* There was a large influx, involving at least 21 birds, 11 of which arrived during 11th–15th November. Five were found in Shetland (Kergord on 8th November, Trondra 14th–19th November, Whalsay 15th–30th November, Grutness 15th–20th November, Gulberwick 16th–19th November) and at least nine reached East Anglia (in Suffolk, at Bawdsey on 8th November, Gunton 13th–15th November, and Lowestoft 15th–18th November, with two there on 19th, one remaining to 23rd November; in Norfolk, Trimingham 9th–10th November, Caistor-on-Sea 15th November, Great Yarmouth 20th–21st November, Holme 23rd November and another on 28th). Elsewhere, singles at South Gare (Cleveland), 11th–12th November; Foveran Links (North-east Scotland), 12th–19th November; Winspit, 12th November and Wyke Regis 23rd November to 11th December (both Dorset); Sunderland (Co. Durham), 14th November; Holy Island (Northumberland), 15th November, and Dungeness, 4th–7th December. Dusky Warbler *Phylloscopus fuscatus* Birds remained at North Warren (Suffolk) to 10th, Balmedie CP (North-east Scotland) to 12th, and St Mary's to 13th. Thereafter a further 18 were found, 15 of those found during 12th–15th November. Like Hume's Warblers, most were found in east-facing counties, including three in Yorkshire, two each for Shetland, Norfolk and Suffolk, plus singles in Fife, North-east Scotland and Northumberland. In addition, in the southwest there were three more on Scilly and three in

Mark Rayment

35. First-winter male Eastern Black Redstart *Phoenicurus ochruros phoenicuroides*, Margate, Kent, November 2011.

Cornwall. Melodious Warbler *Hippolais polyglotta* Happisburgh (Norfolk), 8th–10th November; Winterton, 17th November.

Rose-coloured Starling *Pastor roseus* Power Head, 6th–13th November; Inverkeithing (Fife), 7th–12th November; Lodmoor (Dorset), 13th November to 2nd December; Holyhead (Anglesey), 19th–26th November; West Bergholt (Essex), 22nd–27th November; Slapton Ley (Devon), 23rd November; Radcliffe-on-Trent (Nottinghamshire), 3rd December.

Veery *Catharus fuscescens* Muck (Highland), 16th–24th November. Red-flanked Bluetail *Tarsiger cyanurus* Whitburn (Co. Durham), 10th November; Landguard, 13th November. Black Redstart *Phoenicurus ochruros* A widespread influx included two males of the eastern form *P. o. phoenicuroides*, potentially the first British records, at Margate (Kent) on 11th–17th November and Holy Island on 16th–21st November. Siberian Stonechat *Saxicola maurus* Seaton Common (Cleveland), 3rd–4th December. Isabelline Wheatear *Oenanthe isabellina* Wernffrwd (Gower), long-stayer to 10th November. Pied Wheatear *Oenanthe pleschanka* Sculthorpe (Norfolk), 10th–13th November. Desert Wheatear *Oenanthe deserti* Long-stayers at Nanjizal (Cornwall) and Loftus (Cleveland), both to 10th November; Holme, 10th–12th November, same Titchwell (Norfolk), 14th–15th November; Bray Head (Co. Wicklow), two, 13th–15th November; Brixham (Devon), 18th–22nd November; Dungeness, 15th November; Skomer (Pembrokeshire), 15th November; Porthgwarra (Cornwall), 19th–22nd November; Bempton Cliffs (Yorkshire), 19th November to 11th December; North Bull, 20th–21st November; Brownstown Head (Co. Waterford), 22nd November; Titterstone Clee (Shropshire), 25th November to 10th December; Newbiggin (Northumberland), 4th–11th December; Lerwick (Shetland), 7th–11th December.

Olive-backed Pipit *Anthus hodgsoni* Fair Isle, two, 10th, one to 12th November. Elsewhere in Shetland, singles at Sumburgh, 11th–12th November, Wester Quarff, 15th November, Gulberwick, 16th November and Unst, 16th–19th November. Buff-bellied Pipit *Anthus rubescens* Ballycotton, long-stayer to 15th November; Ballinclamper/Clonea (Co. Waterford) 22nd November to 11th December.

Arctic Redpoll *Carduelis hornemanni* Titchwell, 2nd–11th December. Little Bunting *Emberiza pusilla* St Mary's, 13th November; Durlston (Dorset), 19th November; Steyning (Sussex), 19th and 26th November.

Blackpoll Warbler *Dendroica striata* Tunbridge Wells (Kent), 19th and 21st–22nd November. Northern Waterthrush *Seiurus noveboracensis* St Mary's, long-stayer to 1st December.

Gary Thoburn

36. Male Desert Wheatear *Oenanthe deserti*, Brixham, Devon, November 2011.

Classified advertising

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