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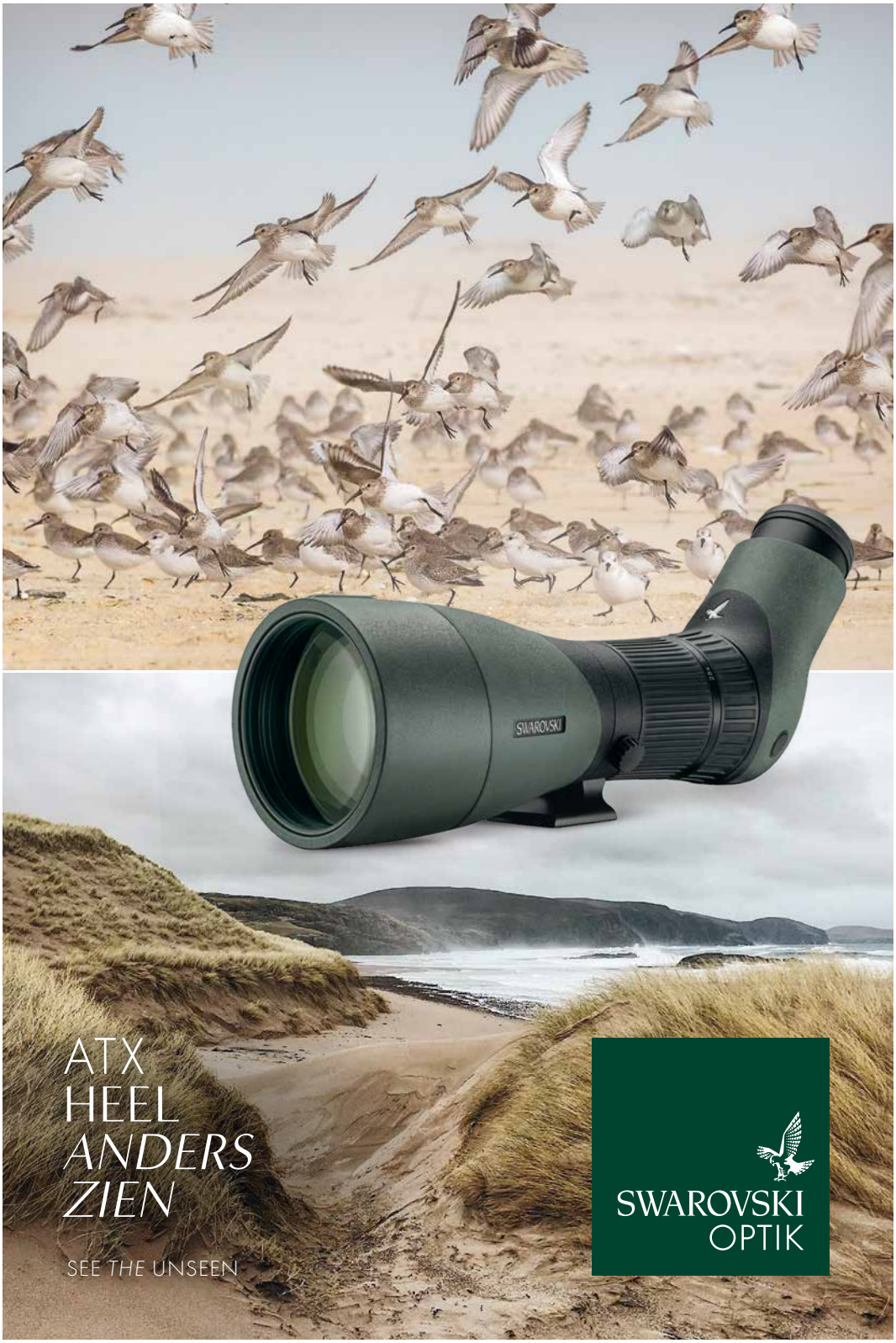
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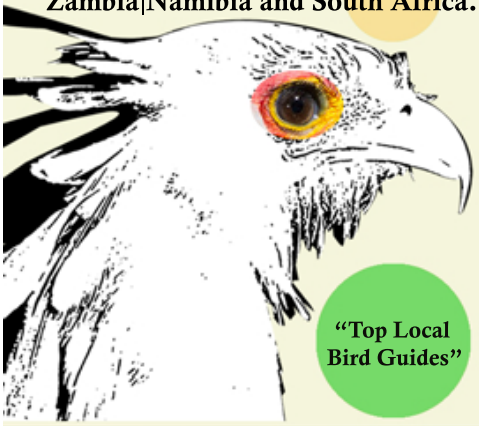

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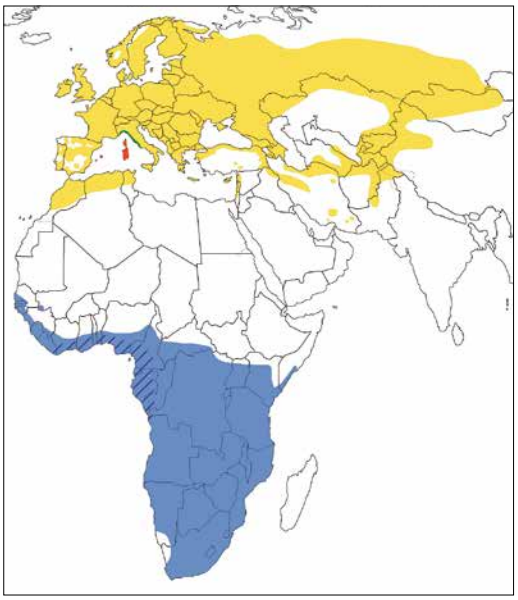
Identification of Mediterranean Flycatcher

Michele Viganò, Andrea Corso, Marc Illa & Lorenzo Starnini

Some of the most interesting taxonomic studies of the last 15 years in Europe were carried out in the western Mediterranean, particularly in Sardinia, Corsica and the Balearic Islands. This biogeographical area is characterized by a unique fauna, which remained isolated and evolved separately from the rest of the European fauna as a result of glacial cycles (Kvist et al 2004, Weiss & Ferrand 2007, van der Geer et al 2010). Examples of such studies are those in Moltoni's Warbler *Sylvia subalpina* (Brambilla et al 2008ab, Svensson 2013), Marmora's Warbler *S sarda* and Balearic Warbler *S balearica* (Shirihai et al 2001), and Citril Finch *Carduelis citrinella* and Corsican Finch *C corsicana* (Förschler & Kalko 2007, Förschler et al 2009), which analysed morphological, vocal, and genetic differences between these taxa to provide a picture of their systematics as complete as possible. The *Muscicapa* flycatchers in the western Mediterranean are among the most recent objects of study. So far, studies have dealt with morphology (Gargallo 1993, Viganò & Corso 2015, Olioso et al 2019), genetics (Pons et al 2016) and, more recently, vocalizations (Viganò 2015, Comolet-Tirman 2017, 2018, Wroza 2019). Here, we will report our most recent studies on vocalizations, relevant to field identification and crucial for assessing systematic relationships. Sounds are especially important in European *Muscicapa* species, with their drab plumage and extensive use of songs and calls, especially during courtship and reproduction (Viganò 2015). Sufficient evidence has now been mustered to confirm the recognition of insular Tyrrhenian populations from continental ones as a separate species according to the Phylogenetic Species Concept (Cracraft 1983, 1997): Mediterranean Flycatcher *M tyrrhenica*. Morphological comparisons of *M t tyrrhenica* (hereafter nominate *tyrrhenica*) and *M t balearica* (hereafter *balearica*) versus Spotted Flycatcher *M striata* (hereafter *striata*) showed significant differences, several of which allowing certain identification both in the field and in the hand (Gargallo 1993, Viganò & Corso 2015, Viganò et al 2016). Additionally, the recent publications and our results of bioacoustic analyses reported here confirm differences in vocalizations (especially song) between *tyrrhenica* sensu lato and *striata*, and their usefulness as a diagnostic character, both in the field and through analysis of sonagrams.

Genetic studies have shown constant differences in mitochondrial (about 3.5% in the CO1 region) and nuclear DNA between 'insular' (Corsica, Sardinia, Balearics, Tyrrhenian coast of Toscana) and continental populations (Pons et al 2016). Additional genetic studies of birds from Elba, in the Tuscan archipelago, and Sardinia, led to identical results of 3.5% different bases in the CO1 region of mitochondrial DNA (mtDNA) between nominate *tyrrhenica* and *striata* (Andrea Galimberti & Michele Viganò unpublished data). These populations can thus be considered two separate entities: the *tyrrhenica* group and the *stri-*

FIGURE 1 Distribution of Spotted Flycatcher *Muscicapa striata* (yellow: breeding; blue: wintering) and Mediterranean Flycatcher *M tyrrhenica* sensu lato (red: breeding, green: breeding range along Tyrrhenian coast of Italy in contact with or very close to that of Spotted; hatched blue: area of very few known winter records of *M t balearica*).



ata group, which separated about 1.1 million years ago, while *balearica*, though clearly grouped in *tyrrhenica* lineage, started differentiating from nominate *tyrrhenica* about 0.5 million years ago and shows a CO1 mtDNA distance from *tyrrhenica* of 1.7%, thus possibly acting as an incipient new species (Pons et al 2016). For decades, Mediterranean Flycatcher was almost completely neglected, with little if anything mentioned about its identification in the main field guides. Western Palearctic (WP) handbooks contain brief, vague, and often mistaken information. This is also the case for Shirihai & Svensson (2018), where the only photograph of a presumed *tyrrhenica* is indeed most probably a *striata* due to cold greyish upperparts, heavy streaking on head, clear demarcation between ear-coverts and underparts and heavy, clear streaking on breast. In the text, they argue against the recognition of Mediterranean Flycatcher as a separated species based on two points: ***1*** morphological distinction of nominate *tyrrhenica* from Italian *striata* is poor and not comprehensively studied; and ***2*** genetically, nominate *tyrrhenica* seems to bridge *striata* and *balearica* rather than group with the latter. In our opinion point ***1*** is confuted by our past studies as well as the evidence shown here (but we agree that further study is needed in the contact zones), while point ***2*** is evidently a misreading of the data presented by Pons et al (2016) (see also Olioso et al 2019).

Our knowledge of migration routes and timing, wintering areas, and stop-over sites of *tyrrhenica* sensu lato is still very limited. Therefore, we summarize the available studies to provide a clear, concise and thorough framework for its identification. This paper mainly focuses on adult plumages of *striata*, nominate *tyrrhenica* and *balearica*; juvenile and first-winter plumages are more briefly analysed due to a lack in knowledge. In this paper, we use terms for *striata* such as 'the European Spotted Flycatchers' or 'Spotted Flycatchers of the European population', as we refer to populations breeding in Europe, or anyway within WP borders, rather than far eastern populations. By the same token, we use *tyrrhenica* sensu lato for Mediterranean Flycatcher as a whole, and nominate *tyrrhenica* and *balearica* for its two subspecies. Additionally, field identification of North African populations (and in part Iberian ones) should be investigated as well, since they likely concern an undescribed subspecies (Pons et al 2016; all authors' pers obs). However, the data at our disposal for North Africa are still incomplete and are only briefly mentioned here.

Materials and methods

We have studied the *Muscicapa* species groups in the field over the last decade in Balearic Islands (Mallorca and Menorca; Spain), Crete (Greece), Corsica (France), Cyprus, Georgia, Germany, Italy (including Sardinia and the Tuscan islands of Elba and Capraia), Switzerland and Turkey. We have also examined photographs from all taxa. Morphometric data were obtained using a stopped ruler (to the nearest 0.5 mm), callipers (to the nearest 0.1 mm) and a thin strip of graph paper (to the nearest 0.5 mm). On these birds we also measured the intensity of streaking on head and breast using the same categories used in Viganò & Corso (2015) (in the present study we added two additional ones for head streaking to include the heavier head pattern of *balearica*); after an initial evaluation of all specimens, we established categories that could represent in sufficient detail the variability. We scored breast streaking on a 0 to 6 scale (0 indicating the least streaked birds and 6 the most streaked ones) and head streaking on a 0 to 7 scale.

Collections visited for this research are: Natural History Museum, Tring, England (NHMUK); Museo Zoologico ISPRA, Ozzano dell'Emilia, Italy (MZI); Museo Civico di Storia Naturale di Milano, Milan, Italy (MSNM); Museo Civico di Zoologia di Roma, Roma, Italy (MCZR); Museo di Scienze Naturali in Forlì, Forlì, Italy (MSNF); Museu de Ciències Naturals de Barcelona, Barcelona, Spain (MCNB); and Muséum National d'Histoire Naturelle, Paris, France (MNHN). A total of c 300 skins were examined to study plumage characters and variability; morphometric measurements were also taken for 87 of these, whose geographic origin can be found in table 1. The recordings used to analyse songs (92 individuals) were obtained with a portable recorder and a parabolic microphone (table 2).

General information

Mediterranean Flycatcher – nominate M t tyrrhenica

Described in German (translated here) as 'Tyrrhenischer Grauer Fliegenfänger' by Guido Schiebel (1910). One of the syntypes is stored at Zoologische Forschungsmuseum Alexander Koenig, Bonn, Germany (ZFMK). The female is registered as ZFMK 57.1307, collected at Aitone near Evisa, Corsica, France, on 18 May 1910 (van den Elzen & Rheinwald 1984). Type description: '*Muscicapa striata tyrrhenica* subsp. nova. Tyrrhenian Flycatcher. Easily distinguished from a series of *M. s. striata* from Austria since the streaking on the underparts is very blurry and does not contrast strong-

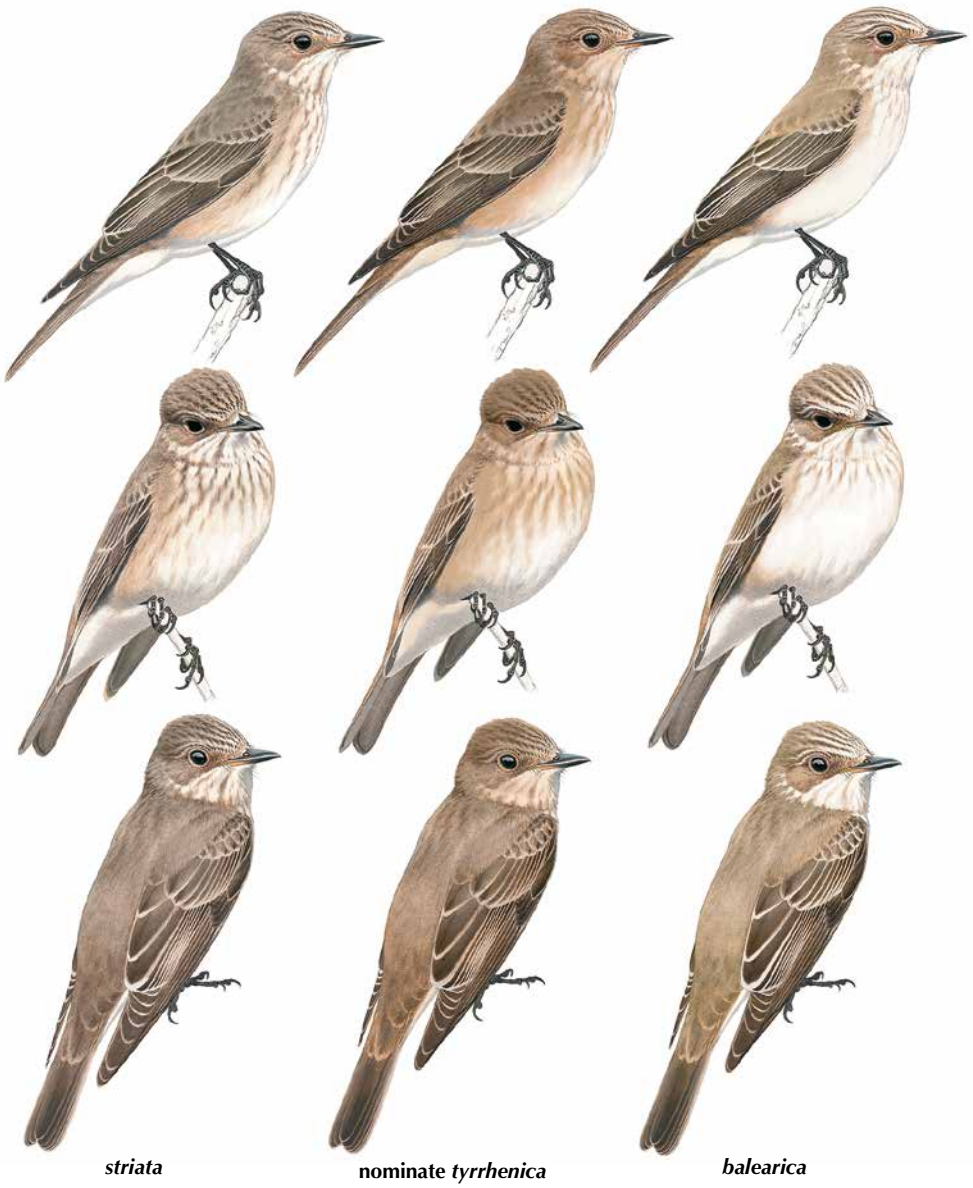


FIGURE 2 Spotted Flycatcher / Grauwe Vliegenvanger *Muscicapa striata* (left), Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *M tyrrhenica tyrrhenica* (centre) and Balearic Flycatcher / Balearische Vliegenvanger *M tyrrhenica balearica* (right) *(Lorenzo Starnini)*. For nominate *tyrrhenica* note especially: short wing not projecting beyond tail-coverts and with primary projection shorter than tertials length, rusty tones to plumage, weak contrast between upperparts and underparts, weak head streaking, diffuse streaking on underparts, creamy tinge to throat and lack of clear demarcation between ear-coverts and throat. For *balearica* note: same short wing as nominate *tyrrhenica*, warm but paler tones to plumage (more creamy/beige), clear contrast between upperparts and underparts, very pale underparts with almost immaculate flanks, very pale (whitish) base to head feathers making the head streaking even more evident than in *striata*, few, pale and thin streaking on throat and breast, rusty ear-coverts appear as mask due to contrast with pale crown, throat and some white neck feathers.

TABLE 1 Numbers and geographic origin of studied *Muscicapa* specimens

***Muscicapa striata* (53)**
M s striata (40) – Britain (5 NHMUK); France (1 NHMUK); Italy (29, from throughout continental Italy: 9 MSNM, 9 MCZR, 3 MSNF, 8 MZI); Netherlands (1 NHMUK); Poland (2 NHMUK); Sweden (2 NHMUK).
M s neumanni (4) – Crete, Greece (1 NHMUK); Iran (2 NHMUK); Palestine (1 NHMUK).
M s ssp (9) – Morocco (5: 2 NHMUK, 3 MCNB); Spain (3 MCNB); Tunisia (1 NHMUK).

***Muscicapa tyrrhenica* (34)**
M t tyrrhenica (17) – Corsica, France (1 NHMUK); Sardinia, Italy (16: 6 MSNM, 6 MCZR, 4 MSNF).
M t balearica (17) – Balearic Islands, Spain (15 NHMUK); Cameroon (2: 1 in spring (23 April 1921) and 1 in autumn (28 October 1907), NHMUK).

TABLE 2 Numbers and geographic origin of analyzed songs of *Muscicapa* taxa

***Muscicapa striata* (31)**
M s striata (31) – Britain (1 Martin Sutherland/xeno-canto.org XC256403); France (5 Julien Rochefort); Italy (13 this study); Poland (1 Krzysztof Deoniziak/xeno-canto.org XC101385); Sweden (1 Mats Rellmar/xeno-canto.org XC139372); Switzerland (10: 9 this study, 1 Thomas Luthi/xeno-canto.org XC247757).

***Muscicapa tyrrhenica* (61)**
M t tyrrhenica (37) – Corsica, France (24: 20 this study, 4 Arnoud van den Berg/The Sound Approach); Italy (13: 4 from Sardinia, 1 from Livorno (coast of Toscana), 7 from Capraia (Tuscan archipelago), 1 from Montecristo (Tuscan archipelago) – all for this study except the one from Montecristo by Giuseppe Gazzoni (in Brichetti & Fracasso 2008).
M t balearica (24) – Balearic Islands, Spain (21 from Mallorca: 19 this study, 2 Mark Constantine/The Sound Approach; 3 from Menorca, this study).

ly with the other feathers. One individual from Sardinia (donated by Crown Prince Rudolph, Hofmuseum, Vienna) resembles the Corsican birds. Range: Corsica and Sardinia. Types: male, 19 May 1910; female, 19 May 1910; pair.'

BREEDING RANGE The published breeding range comprises Sardinia, Corsica, the Tuscan archipelago (nominate *tyrrhenica*) and the Balearic Islands (*balearica*) (Viganò & Corso 2015) (figure 1). In much of its range, this taxon is exceptionally common and prefers less arboreal habitats than *striata*, favouring rocky and sometimes highly urbanized areas (Brichetti & Fracasso 2008, Viganò & Corso 2015; MV pers obs). In some publications, nominate *tyrrhenica* is also reported as breeding along a narrow coastal strip on the western – ie, Tyrrhenian – coast of Italy (Tellini et al 1997, Brichetti & Fracasso 2008). This has recently been confirmed by our personal observations: ***1*** in May 2015, we observed and sound-recorded singing individuals at Livorno (Tuscan coast); ***2*** in July 2016, several presumably breeding birds were photographed along the Entella river at Lavagna along the Ligurian coast (Daniele Papi and Andrea Simoncini in litt; the most northerly population currently known); ***3*** in June-July 2016, breeding birds were observed along the Tiber river at Rome, syntopically with several breeding pairs of *striata* (Andrea Corso & Justin Jansen pers obs). Its presence along the Tyrrhenian coast of Toscana is confirmed by the presence of individuals identified genetically as nominate *tyrrhenica* from the city of Livorno (Pons et al 2016). The presence of nominate *tyrrhenica* as far inland as Firenze, the locality of the wrongly identified photograph in Shirihai & Svensson (2018), has never been confirmed so far. We have the following data from small islands in the Tyrrhenian Sea, ie, away from its published range in the Tuscan archipelago: ***4*** in June 2012, several pairs on Marettimo, Egadi islands, Sicily (Giuseppe Speranza in litt); ***5*** in June 2017, several apparently breeding pairs on Ustica, c 50 km north of Palermo, Sicily (Giuseppe Speranza in litt); ***6*** in July 2016, several pairs on Ponza, Pontine archipelago, Latium (Giovanni Radaelli in litt); and ***7*** in June 2018, some possibly breeding birds on Ischia, Campania (Rosario Balestrieri in litt).

MIGRATION At least three were found on migration on 12 September 2015 on Salina, Aeolian islands, Sicily (Davide De Marchi in litt); two on 11 October 2015 on Lampedusa, Pelagie islands, Sicily (pers obs, MISC – Malati di Isolitudine allo Stadio Cronico); and numerous individuals (both adults and juveniles) in mid- to late September 2013-16 on Favignana, Egadi islands, Sicily (AC pers obs). It would be interesting to verify whether, as we suspect, Mediterranean Flycatcher also breeds on Salina and the Egadi islands. The wintering area is still unknown (Viganò & Corso 2015, Pons et al 2016, Viganò et al 2016).

VERNACULAR NAME The English name chosen by the IOC World Bird List is Mediterranean Flycatcher (Gill & Donsker 2019). Since Dutch Birding follows the IOC list for vernacular names, it is also the name used in this paper (Redactie Dutch

Birding 2016). When Mediterranean Flycatcher becomes the name of *tyrrhenica* sensu lato, Tyrrhenian Flycatcher can be used for nominate *M t tyrrhenica* and Balearic Flycatcher for *M t balearica*.

Balearic Flycatcher – M t balearica
Described in German (translated here) by Karl von Jordans (1913). The holotype is stored in ZFMK. The male was collected at Valldemosa, Mallorca, on 19 May 1913 (ZFMK 654) (van den Elzen & Rheinwald 1984). Type description: '*Muscicapa striata balearica* subsp. n. Bird surprisingly pale. Upperhead feathers with broad white edges. Back and underside very bright. Very similar to *M. str. Neumanni* Poche, but brighter, especially the upperhead, remarkably short wings. Wing length male 79,5-81,5, female 76-80 mm (*M. str. striata* 85-89, *M. str. neumanni* 86-90,5 mm). Type in my collection.'

BREEDING RANGE This taxon is only found breeding in the Balearic Islands, where it is very common and often found close to buildings (Gargallo 1993).

MIGRATION Recently, several sightings have been reported for French and Spanish Mediterranean coasts which reveal a regular passage, with a peak in early May (Peignot & le CHR-LR 2011, Gil et al 2016). There are five records outside the Balearic Islands: ***1*** one ringed in Merzouga, south-eastern Morocco, on 27 April 2013, the first record for Morocco (Bergier et al 2015); ***2*** one ringed in Malta on 26 April 2011 (Galea & Viganò 2011); ***3*** one ringed on Antikythera, Greece, on 5 May 2011 and recaptured afterwards on Menorca, Balearic Islands (Garcia-Febrero & Barboutis 2012); ***4*** 12 individuals trapped on Sardinia between late April and early May, five in Mal di Ventri (from May 1997) and seven from Asinara (May 2013, May 2014, May 2018 and four between late April and early May 2019) (Fozzi et al 2019); ***5*** one presumed bird photographed near Tagoundaft, 22 km north-east of Tizi n'Test pass, High Atlas, Morocco, on 13 April 2019 (Luca Mazzini et al). Winter range: specimens have been collected in western and south-western Africa (del Hoyo et al 2006). Two collected in Cameroon: see table 1.

VERNACULAR NAME When Mediterranean Flycatcher becomes the name of *tyrrhenica* sensu lato, Tyrrhenian Flycatcher can be used for nominate *M t tyrrhenica* and Balearic Flycatcher for *M t balearica*.

Spotted Flycatcher – various subspecies
Gill & Donsker (2019) list the following subspecies of *striata*:

M s striata, breeds from Europe east across the Ural mountains to western Siberia (Irtysh river), and in north-western Africa from northern Morocco east to northern Tunisia; winters in western, eastern and southern Africa.

M s inexpectata, breeds in Crimea; winters in Africa.

M s neumanni, breeds from islands in the Aegean Sea east to the Caucasus and northern and western Iran, and south to Cyprus and Levant, also in central Siberia (from Irtysh river east to western Transbaikalia); winters in eastern and southern Africa.

M s sarudnyi, breeds from eastern Iran and Turkmenistan east to Tien Shan, Pamirs and northern and western Pakistan; winters probably in eastern and southern Africa.

M s mongola, breeds from south-eastern Altai east to south-eastern Transbaikalia and northern Mongolia; winters probably in eastern and southern Africa.

The same genetic distance measured between the two subspecies of Mediterranean Flycatcher was found between European individuals of Spotted Flycatcher, including *M s neumanni*, and six individuals from Spain and Tunisia (Pons et al 2016). Additional studies are underway to shed light on the taxonomic situation of other populations of Spotted Flycatcher, especially those from Iberia and North Africa which, on the basis of genetic, structural, and plumage differences, may be subspecifically distinct (Jean-Marc Pons & José Luis Copete in litt). Nevertheless, in the absence of data on vocalizations, which proved essential for the other taxa, any further speculation on the systematic relationships of Iberian and North African populations is premature.

Plumage sequences
Interestingly, *Muscicapa* flycatchers have a moult sequence unique among European birds, with primaries moulting ascendantly, from the outermost (p1) to the innermost (p10) (Svensson 1992, Jenni & Winkler 1994, Blasco-Zumeta & Heinze 2015, Demongin 2016). Additionally, moult takes place mostly on the wintering grounds, and primary moult hardly ever in Europe, with very rare exceptions (Jenni & Winkler 1994). Therefore, birds can look very abraded and featureless in summer (plate 402). There is no information available in the literature on moult in Mediterranean Flycatcher, but two adult nominate *tyrrhenica* photographed by

402 Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *Muscicapa tyrrhenica tyrrhenica*, Sardinia, Italy, 7 August 2012 *(Helge Sørensen)*. This very abraded and faded individual lost most of its warm rusty-drab or beige tinge to both underparts and upperparts; however, note almost invisible streaking and typical structure with shorter primary projection compared with Spotted Flycatcher *M striata,* with impression of longer tail. Abraded birds appear more two-toned than fresh ones, but still look duller overall and more uniform than Spotted. **403** Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *Muscicapa tyrrhenica tyrrhenica*, Salina, Eolie Islands, Sicily, Italy, 12 September 2015 *(Davide de Marchi)*. On this bird many typical features of nominate *tyrrhenica* are visible: warm brownish colours, weak streaking on head and breast, creamy tinge on throat and weak contrast with ear-coverts, primary projection shorter than tertials length. There is an almost complete lack of information about moult timing of Tyrrhenian but this adult bird seems more advanced in his post-breeding moult than is usually the case in Spotted Flycatcher *M striata*, with newly replaced greater and median coverts, three tertials and, apparently, four inner primaries.

Davide de Marchi on Salina, Sicily, on 12 September 2015 (plate 403) showed quite an unusual moult for a European *Muscicapa*, being very advanced – including nearly all greater coverts, tertials, and four primaries – and because the moulted primaries were the inner ones as opposed to the outer ones, as would normally be the case in European *Muscicapa*. Additional studies are sorely needed to shed more light on the moult strategy of the two subspecies of Mediterranean Flycatcher.

Identification

General appearance

Tyrrhenica sensu lato is slightly smaller than *striata*, with a different structure. The wings are shorter and the tail appears longer in the field due to the shorter maximum chord and primary projection. The head looks somewhat larger, as in many Asian flycatchers. The two subspecies can be distinguished on plumage. Nominate *tyrrhenica* gives a rather dark overall impression (especially wings and tail), 'dirty', and lacking contrast (plate 404). This is due to lower contrast between the upperparts and underparts, the less-defined streaking on the underparts compared with *striata* and the warmer flanks, often with a buffy hue. The plumage of *balearica* is very pale and clean, both above and below; the underparts in particular can appear almost pure white from a distance (plate 406). The upperparts are paler than in other taxa in nominate *tyrrhenica* and *striata*, with a beige tint, while the head's whitish background colour sets off streaking that is better defined and often more 'orderly' than in *striata* and especially nominate *tyrrhenica*.

Structure

Table 3 gives the main biometric measurements from our studies of museum skins. Both subspecies of Mediterranean Flycatcher are smaller and more delicate than *striata*: the average maximum chord measured for nominate *tyrrhenica* was 81.6 mm (79-84) and for *balearica* 78.9 mm (76-82), while for 47 *striata* from throughout the WP (but excluding North Africa, see below) the average is 85.5 mm (83-90). We compared our museum measurements with measurements taken on ringed birds in the Balearic Islands (212 *striata*, 229 *balearica*) and can confirm that there is no statistical difference in the mean wing chord length of live birds and museum specimens (t-test for *balearica* gave t=0.4666 and p=0.6412, for *striata* t=0.6295 and p=0.7878). In the field, the shorter wing of *tyrrhenica* sensu lato can be detected by looking at primary projection (in relation to tertial length) and the wing-tip/tail-tip ratio. In *tyrrhenica* sensu lato, tertial length

TABLE 3 Important morphometric (mean and range in mm, followed by number of specimens) and plumage measurements derived from museum specimens for the three *Muscicapa* taxa discussed. Values for p2-5 indicate distance (in mm) between second and fifth primary (numbered from outside); positive values indicate that p2 is longer than p5, negative values the opposite. Same for third and fourth primary (p3-4), where p3 is almost always wing-tip in *striata*, while in *tyrrhenica* sensu lato p3 is very often bunched with p4. Plumage streaking intensity was measured for both breast (on scale from 0 to 5, where 0 is least and 5 most streaked) and head (on scale from 0 to 7); see main text under Materials and methods for further details.

	striata	**nominate *tyrrhenica***	***balearica***
wing chord	85.84 (83-90; 44)	81.59 (79-84; 17)	78.82 (76-82; 17)
tail	55.60 (50-60; 15)	56.36 (54-61; 14)	56.00 (51-58; 17)
p2-5	2.57 (0/5; 44)	-0.59 (-2/1; 14)	-1.94 (-4/0; 17)
p3-4	1.25 (0/3, 44)	0.06 (-1/1; 17)	-0.18 (-1/0; 17)
bill width	4.37 (3.5-4.5; 28)	4.35 (3.5-5; 15)	4.39 (3.5-4.5; 8)
breast streaking	4.04 (3/5; 28)	1.6 (0/3; 15)	0.53 (0/2; 17)
head streaking	3.62 (2/5;, 28)	1.33 (0/3; 15)	5.59 (4/7; 17)

is always longer, or at most equal to primary projection (plate 406, 411), while in *striata* the tertial length is always shorter, or at most equal to primary projection (plate 410). When perched and with the wings closed, the wing-tip of *tyrrhenica* sensu lato reaches the base of the tail or c one third of the way down, while in *striata* it reaches at least halfway down the tail. The wing formula also differs between the two: in *tyrrhenica* sensu lato, the wing is rounder with p2 shorter than p5 (numbered from the outside) (plate 407, 409), while the reverse is usually true in *striata* (plate 408). As a consequence, in *tyrrhenica* sensu lato p2 is also clearly shorter than p3 (which forms the wing point), while this difference is less evident in *striata*. Nevertheless, we feel that the p2/p5 ratio is more reliable: this character is easy to use in the hand and on museum skins but can also be seen in the field under ideal conditions or on good photographs (cf plate 410, 413). The best conditions for evaluating this character and obtaining useful images are with birds at eye level or above, and slightly backlit: the primaries will appear translucent, making it easier to assess the position of p2 in relation to p5 (plate 412). Some Iberian breeding individuals from Catalunya measured in the field have p2 equal to p5 in length, or even shorter. The number of studied birds is small (n=25) and mostly they showed p2 longer than p5. Furthermore, from our data there seems to be a slight gradient, with birds from northern, north-eastern and western Europe (Denmark, France, Netherlands, Poland, Sweden) showing a larger distance between p2 and p5 (p2 much longer than p5, mean 3.91 mm, n=8), while birds from central/southern Italy have a less pronounced distance (mean 2.14 mm, so p2 closer to p5 but still longer, n=7); anyway, birds from as south as the Puglia and Calabria regions of Italy (thus breeding south of many Mediterranean Flycatchers) still show p2 longer than p5, the reverse of most *tyrrhenica* sensu lato. This highlights the need of combining different features for a correct identification. Average tail length is the same in the two species but in light of the wing-tip/tail-tip ratio, *tyrrhenica* sensu lato appears to have a narrower and longer tail compared with *striata*, both in the field and in the hand. We did not find any other meaningful structural differences. In this regard, it is interesting to note that Parrot (1910) reported differences in bill structure for nominate *tyrrhenica*, which he considered to be flatter at the base and more elongated, based on six specimens from Corsica. We have been unable to confirm these differences in bill structure – our measurements from a large series of specimens were similar for all three taxa discussed here – but measurements taken from live birds may shed a different light on the assessment of this character.

Plumage colour

The mantle of *striata* from continental Europe is rather cold brownish-grey, lacking warm tones (plate 405). The rump appears concolorous with the back, or at most slightly warmer. Wings and tail are essentially the same colour, with rather evident pale edges, which wear rapidly and may be nearly invisible as early as May, more commonly mid/late June (wing and tail moult takes place on the wintering grounds in Africa). The underparts are rather pale with evident streaking and contrast visibly with the upperparts. Nominate *tyrrhenica* have clearly warmer plumage tones, brown with a rufous hue (cf plate 404). Although the mantle appears slightly paler in the field, the wings, tail, and head are darker, and this together with darker, less contrasting edgings to the tail and flight-feathers, give nominate *tyrrhenica* a darker overall appearance compared with *striata*; the edges to the wing-

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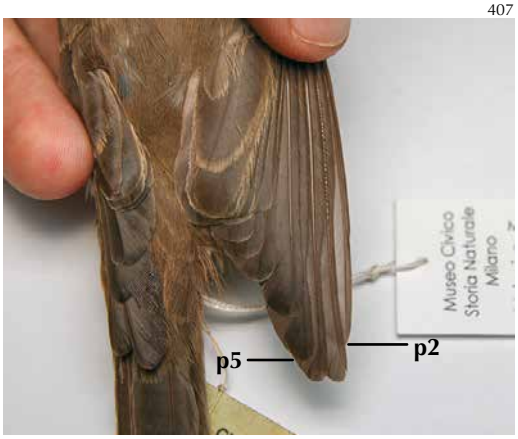
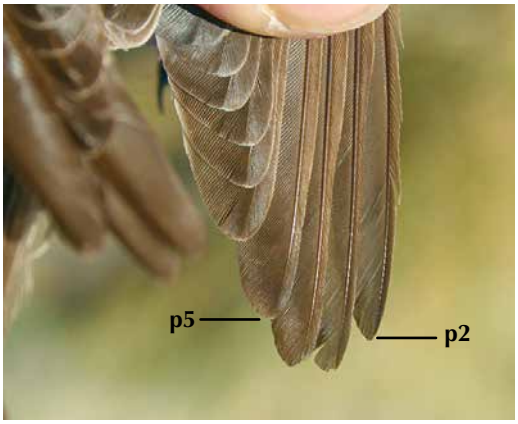


404 Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *Muscicapa tyrrhenica tyrrhenica*, adult, Corsica, France, 6 June 2015 *(Michele Viganò)*. Under field conditions, general impression of individuals from Sardinia, Corsica and Tyrrhenian islands and coasts, Italy, is that of warmer-toned birds than Spotted Flycatcher *M striata*, more uniformly coloured overall, with shorter wings, longer tail and bigger looking head and much less defined streaking on both head and underparts. **405** Spotted Flycatcher / Grauwe Vliegenvanger *Muscicapa striata*, adult, Pantelleria, Sicily, Italy, 15 May 2013 *(Michele Viganò)*. During migration in Mediterranean basin, especially on small islands, it is possible to observe Spotted and Mediterranean Flycatcher *M tyrrhenica* together: on side-by-side comparison, it is possible to note longer wings/primary projection of Spotted (wing-tip longer than longest undertail-covert), with primary projection being longer than tertials' length, proportionally shorter tail projection, colder and greyer plumage tone overall, more distinctly streaked underparts and crown, with better defined and well demarked streaks. **406** Balearic Flycatcher / Balearische Vliegenvanger *Muscicapa tyrrhenica balearica*, adult, Mallorca, Balearic Islands, Spain, 11 June 2015 *(Alex Bos)*. On Balearic Islands, this subspecies of Mediterranean Flycatcher is very common and widespread, breeding also in urban landscape. Its structure is very similar to that in Tyrrhenian Flycatcher *M t tyrrhenica* but plumage is visibly paler, slightly colder, cleaner overall, with stronger contrast between darker upperparts and paler underparts, these being almost clean white. Crown has whiter ground colour than any other of related flycatcher taxa. Compared with Spotted Flycatcher *M striata*, primary projection is shorter (shorter than tertials' length), reaching 1/3 of tail (not 2/3) and in line with longest uppertail-coverts (and often shorter than undertail-coverts), appearing longer tailed; plumage is cleaner, paler, with narrower streaking on breast and crown, often barely visible. **407** Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *Muscicapa tyrrhenica tyrrhenica*, adult (collected on Tavolara, Sardinia, Italy, 14 May 1966), Museo Civico di Storia Naturale di Milano, Italy, 20 November 2012 *(Michele Viganò)*. All over distribution range of Mediterranean Flycatcher (ie, both subspecies), wing is shorter than in Spotted Flycatcher *M striata*, with shorter second primary (p2) shorter or equal to p5. Furthermore, p3 and p4 appear closer to each other, being in most cases of same length.



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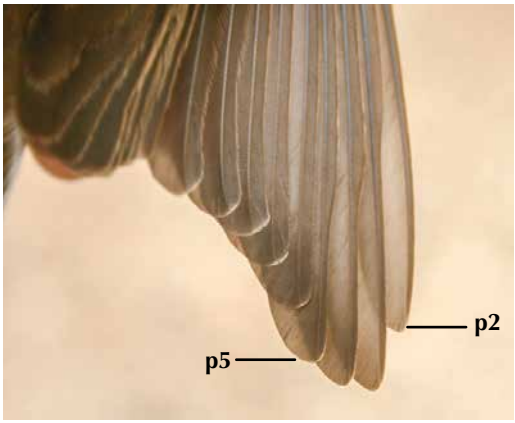

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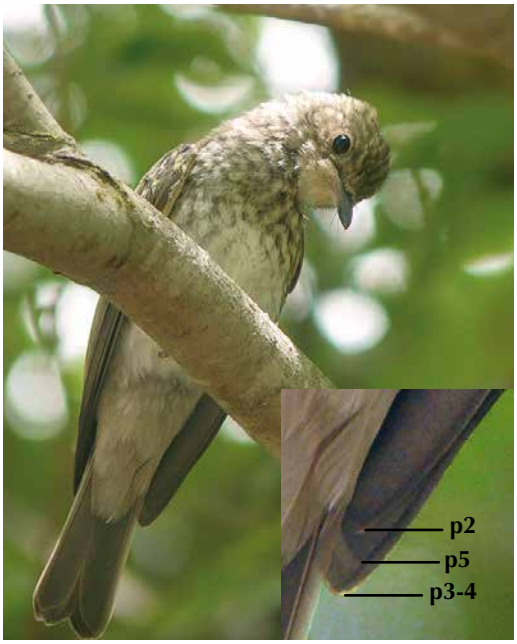
408 Spotted Flycatcher / Grauwe Vliegenvanger *Muscicapa striata*, adult, Falsterbo, Skåne, Sweden, 22 August 2015 *(Marc Illa)*. In *striata*, p2 is (almost) always longer than p5. **409** Balearic Flycatcher / Balearische Vliegenvanger *Muscicapa tyrrhenica balearica*, adult, Illa de l'Aire, Menorca, Balearic Islands, Spain, 5 May 2015 *(Marc Illa)*. Wing formula in *balearica* is similar to that in Tyrrhenian Flycatcher *M t tyrrhenica*, or sometimes with even shorter p2. **410** Spotted Flycatcher / Grauwe Vliegenvanger *Muscicapa striata*, adult, Ventotene island, Lazio, Italy, 24 April 2011 *(Michele Viganò)*. Note extremely long primary projection, longer than tertials, and uppertail-coverts, reaching more than 2/3 of tail. In rare opportunity like this, when p2 is displaced, longer length compared with Mediterranean Flycatcher *M tyrrhenica* is obvious. **411** Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *Muscicapa tyrrhenica tyrrhenica*, adult, Sardinia, Italy, 20 May 2012 *(Francesco Deluca)*. Streaking on breast (and often belly) is weak and often appearing as dull spotting/marbling (almost as in Thrush Nightingale *Luscinia luscinia*), less well marked and obvious than in Spotted Flycatcher *M striata*. Head is overall dull with rather dull ground colour, streaking consequentially being barely visible. Throat is tinged creamy or tawny-drab, almost concolorous with ear-coverts (unlike Balearic Flycatcher *M t balearica*). Often, it is throat where dark markings are more visible. Flanks are in most birds tinged creamy or drab-tawny as well, more often than in Spotted (and of course than in Balearic).

coverts are also more fulvous and therefore less contrasting. In nominate *tyrrhenica*, the rump shows the warmest, rustiest tones of the entire body and slightly contrasts with the mantle and the tail (plate 411). The underparts look rather dirty, including the flanks and underwing, and contrast with the upperparts is limited. Additionally, the underparts, especially the throat and upper chest, show a pale cream wash that is lacking in the other taxa (plate 417). *Balearica* share with nominate *tyrrhenica* the warm tones on the mantle, wings and tail but the ground colour is visibly paler and less reddish than in nominate *tyrrhenica*; sandy tones prevail over reddish ones (plate 406, 415). Additionally, some individuals may have a greyer and colder plumage, with reduced warm tones



412 Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *Muscicapa tyrrhenica tyrrhenica*, juvenile, Sardinia, Italy, 29 July 2013 *(Claudio Crespi)*. All flycatchers, when perched, often have wings slightly open: in such position, it is possible to study wing-formula in detailed and close up photographs – note rather short p2, 'bunched' p3-p4 and shadow of p5, longer than p2.

413 Balearic Flycatcher / Balearische Vliegenvanger *Muscicapa tyrrhenica balearica*, adult, Mallorca, Balearic Islands, Spain, 24 May 2016 *(Michele Viganò)*. When preening, it may be possible to 'read' wing formula: look for rather short p2 with much longer p5 (in Spotted Flycatcher *M striata* this would have almost equal length of p5 or shorter and not visible). Note also typically clean white underwing-coverts of *balearica*, and almost unmarked white underparts, including breast. Crown is very pale with 'ghostly' streaking. Throat is very white, contrasting strikingly with ear-coverts, more than in Spotted and Tyrrhenian Flycacther *M t tyrrhenica*.

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414 Spotted Flycatcher / Grauwe Vliegenvanger *Muscicapa striata*, adult, Losone, Ticino, Switzerland, 12 June 2014 *(Riccardo Carettoni)*. Streaking on both underparts and head more pronounced, visible and regularly defined compared with Mediterranean Flycatcher *M tyrrhenica*; furthermore, border between dark ear-coverts and pale throat is more abrupt than in Mediterranean, which usually shows creamy tinge in throat, lowering contrast between upper- and underparts. **415** Balearic Flycatcher / Balearische Vliegenvanger *Muscicapa tyrrhenica balearica*, adult, Mallorca, Balearic Islands, Spain, 5 May 2015 *(Juan Sagardía)*. Plumage of *balearica* is surely most characteristic among related Western Palearctic *Muscicapa* flycatchers: underparts are almost unmarked white (sometimes only barely tinged creamy), fine, pencil-like dark streaking barely detectable, ground colour of crown is rather whitish, with darker streaking showing off pretty well, upperparts are drab-tawny, rusty ear-coverts often appear as isolated patch (surrounded by pale). **416** Balearic Flycatcher / Balearische Vliegenvanger *Muscicapa tyrrhenica balearica*, adult (left) and Spotted Flycatcher / Grauwe Vliegenvanger *M striata* (right), Illa de l'Aire, Menorca, Balearic Islands, Spain, 8 May 2012 *(Marc Illa)*. When compared directly, whiter ground colour of crown of *balearica* is strikingly visible. In Tyrrhenian Flycatcher *M t tyrrhenica*, colour would be pretty similar to *striata*, but dark streaking much less well marked. **417** Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *Muscicapa tyrrhenica tyrrhenica*, adult (left) and Spotted Flycatcher / Grauwe Vliegenvanger *M striata* (right), Sardinia, Italy, 22 May 2018 *(Ilaria Fozzi)*. When directly compared, it is easy to note differences in colours and contrasts between them: right bird has more numerous, clearer and browner streaks on underparts, while left bird shows fainter streaking and distinctive creamy wash to throat.

418 Spotted Flycatcher / Grauwe Vliegenvanger *Muscicapa striata*, adult, Falsterbo, Skåne, Sweden, 22 August 2015 *(Marc Illa)*. Note cold plumage tone in this post-breeding adult, with very well marked dark streaking on crown and throat/breast, and very long wing and primary projection. **419** Balearic Flycatcher / Balearische Vliegenvanger *Muscicapa tyrrhenica balearica*, adult, Illa de l'Aire, Menorca, Balearic Islands, Spain, 5 May 2015 *(Marc Illa)*. Being easiest Mediterranean Flycatcher *M tyrrhenica* to identify, *balearica* shows most characteristic plumage pattern: almost white ground colour of crown with well visible streaking, pencil-like streaking over breast, white throat which is often unmarked, isolated rusty ear-coverts patch, clean and bright underparts, uniformly tawny-drab or 'beige' upperparts, and often rather pale rump. In hand examination will reveal biometrical characters that are diagnostic for Mediterranean (ie, both nominate *tyrrhenica* and *balearica*).

(caused by wear and individual, seasonal and age-related variation). The underparts are quite clean, almost pure white; the flanks are white, at most with a slight brownish wash, and the underwing is milky-white with a very slight hint of pale fulvous or cinnamon, which is often altogether lacking. When assessing field records of *balearica* in a vagrancy context, and especially when the documentation is poor, photographs of the underwing might be highly relevant to ensure the identification.

Chest and head streaking

As already noted by Schiebel (1910), underpart streaking is different in *striata* and *tyrrhenica* sensu lato. In *striata*, streaking is an evident plumage feature (plate 414, 418), hence its scientific name. Streaking is heavy and dense on the chest and neck sides, and quite well defined, contrasting strongly with the whitish ground colour of the underparts; streaking is more diffuse on flanks and axillaries. Some *striata*, especially breeding birds in southern Europe (eg, several birds in north-eastern Spain) can show reduced chest streaking and white background, resembling *balearica* to some extent, but still have brown underwing and flanks. In *tyrrhenica* sensu lato, the underparts are visibly less marked, with some individuals showing virtually no real streaking: markings on the underparts are much less well defined and extensive than in *striata*, and they are rather warm in coloration (plate 411); in some individuals, especially from a distance, it is hard to discern any sort of patterns on the underparts except for a warm wash on the chest. Underpart streaking in *balearica* is limited, very fine, and of a warm yet quite pale colour (plate 415). Important differences from an identification standpoint can also be seen in head streaking (especially crown and forehead). Nominate *tyrrhenica* is the least marked of all, and since the ground colour of the head feathers is darker and warmer compared with the other taxa, the head streaking is less evident. In *balearica,* the ground colour of the head feathers, especially the fore-

TABLE 4 Summary of identification criteria for the three *Muscicapa* taxa discussed

	striata	**nominate *tyrrhenica***	***balearica***
general structure	slender and elongated	short wings, long tail, large head	short wings, long tail, large head
general appearance	contrast between upperparts and underparts	dark and dirty, rather uniform	pale and clean, contrast between upperparts and underparts
primary projection	longer than tertials	shorter than tertials	shorter than tertials
wing formula	p2>p5 p3>p4	p2<p5 p3≈p4	p2<p5 p3≈p4
general colour	brownish-grey, generally cold plumage tones	dark brown with evident warm plumage tones	pale brown with evident warm plumage tones
rump	same colour as back	warmer than back	warmer than back
chest	strongly streaked	spotted or marbled, often indistinct as in Thrush Nightingale *Luscinia luscinia*	thin, well-defined streaking, sometimes nearly invisible
flank and underwing	dark	dark or dirty	pale and clean
head streaking	well-defined	poorly defined (dark ground colour of head)	very well-defined (ground colour of head very pale, often milky white)
ear-coverts	well demarcated from underparts but not from upperparts	blending with spotting on underparts	appearing isolated from rest of face (masked appearance)
song	maximum frequency 2 kHz, almost always below 10/11 kHz	electric tones in song, maximum frequency 18-20 kHz	electric tones in song, to human ear sounds very similar to *tyrrhenica*, but lower maximum frequency (13-15kHz)

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420 From left to right: two Balearic Flycatchers / Balearische Vliegenvangers *Muscicapa tyrrhenica balearica*, adults, Ibiza, Balearic Islands, Spain, 11 May 1930; one Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *M t tyrrhenica*, adult, Strait of Bonifacio, Sardinia, Italy, 1 April 1899; two Spotted Flycatchers / Grauwe Vliegenvangers *M striata*, adults, Upssala, Sweden, 17 June 1950 and Texel, Netherlands, 5 June 1930, respectively; two flycatchers / vliegenvangers *Muscicapa*, Moyen Atlas, Morocco, 28 and 9 July 1919, respectively; Natural History Museum Tring, England, 21 March 2016 *(Michele Viganò)*. Same specimens as in plate 421. Note differences in plumage tone and pattern between Tyrrhenian, Balearic and Spotted Flycatchers: warmer and darker in *tyrrhenica*, warm but paler in *balearica*, and colder in *striata* (with certain amount of variability). Crown weakly streaked in *tyrrhenica*, visibly streaked and contrasting in *balearica*, and well streaked in *striata*. Right specimen of *striata* represents warmest and rustiest extreme of coloration spectrum, while left one is typical example. North African specimens appear as in-between link or mix among both species in plumage colour/pattern and measurements, though closer to Tyrrhenian.

421 From left to right: two Balearic Flycatchers / Balearische Vliegenvangers *Muscicapa tyrrhenica balearica*, adults, Ibiza, Balearic Islands, Spain, 11 May 1930; one Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *M t tyrrhenica*, adult, Strait of Bonifacio, Sardinia, Italy, 1 April 1899; two Spotted Flycatchers / Grauwe Vliegenvangers *M striata*, adults, Uppsala, Uppsala lån, Sweden, 17 June 1950 and Texel, Noord-Holland, Netherlands, 5 June 1930, respectively; two flycatchers / vliegenvangers *Muscicapa*, Moyen Atlas, Morocco, 28 and 9 July 1919, respectively; Natural History Museum Tring, England, 21 March 2016 *(Michele Viganò)*. Same specimens as in plate 420. Note that *balearica* is cleanest and least patterned; nominate *tyrrhenica* is pretty dull below (rusty-drab or dull beige tinged) with pretty dull and marked throat and almost spotted pattern; *striata* shows clean throat with well-marked streaks on malar area, breast with obvious and defined dark streaking. North African birds appearing as taxon with mixed features, though closer to Tyrrhenian.

head, is extremely pale, almost whitish, which clearly and strongly contrasts with the dark streaking (plate 416). In *striata*, this pattern is intermediate, more contrasting than in nominate *tyrrhenica* but never as well defined as in *balearica* (table 4). In summer (July-August), the contour feathers, which by this time are 7-8 months old, are quite worn, and the pale margins that make the head of *balearica* look so contrasting, can wear off to the point that the head looks more uniform, while the underpart streaking in *striata* can look much thinner and subtle differences in plumage contrasts can easily disappear due to wear in nominate *tyrrhenica* too (plate 402).

Face pattern

In combination with underparts and chest streaking, the face pattern is of great use in identifying flycatchers in the Mediterranean basin. Once again, the face pattern in nominate *tyrrhenica* is the least well defined of all three taxa in question. In particular, the streaking/spotting on the chest and chin is so poorly-defined and blurry as to blend in with the ear-coverts; in most individuals, there is no clear demarcation between ear-coverts and the underparts, the ground colour of which is closer to cream than to white (plate 417). In *striata*, instead, the streaking on the underparts is not only thin and well-defined, it is also less messy than in nominate *tyrrhenica*, and running parallel to the malar stripes. This implies that a pale area is present between the dark malar stripe and the dark ear-coverts on *striata*, so that the ear-coverts are always clearly set off from the underparts. This is true in *balearica* as well, although it is not quite as obvious due to the paler ground colour of ear-coverts. Nevertheless, *balearica* shows another important characteristic as a result of the sum of all the field marks listed above. The ear-coverts, together with the lores, look like an isolated dark mask surrounded by paler areas. In most individuals, the pale areas on the sides of the neck are so extensive that it almost looks like a half-collar that reaches all the way around the ear-coverts, further setting off the dark ear-coverts mask (plate 415, 419).

Vocalizations

In late spring and summer 2015, we carried out a study of *Muscicapa* songs. Our aim was to compare the songs of *striata* from continental Europe with those of nominate *tyrrhenica* from throughout their range: Corsica, Sardinia, the Tuscan archipelago and the Tyrrhenian coast. Our results showed that these two species could always be told apart by their songs, both in the field and through analysis of spectrograms, so that the song is a diagnostic identification character. The overall structure of the song of nominate *tyrrhenica* (figure 3) is very similar to that of *striata* (figure 5) but there is one character that allows for the immediate identification of these two species: nominate *tyrrhenica* emits some notes of extremely high frequency, much higher than the 6-8 kHz of their normal notes. They give the song a very distinctive tone, unique among European passerines (although at times Common Nightingale *Luscinia megarhynchos* and Lesser Whitethroat *S curruca* can give brief snatches of song that sound some-

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422 Flycatchers / vliegenvangers *Muscicapa*, adults, Museu de Ciències Naturals de Barcelona, Spain, 18 May 2016 *(Michele Viganò)*. Four left birds: Hauta Kasdir, north-western Morocco, 7-18 July 1932; three right birds: Cubelles, Catalunya, Spain, 6 June 1952. Same specimens as in plate 423. Note that four skins to left appear much rustier and warmer than three right ones. Ibero-maghreb population deserves more study: genetically (see Pons et al 2016), they should represent compact group well differentiated from European Spotted Flycatchers *M striata*; looking at specimens and birds in field it would be hard to think that they belong to same 'population' or taxon. Study of vocalizations will surely help in better understanding of this conundrum. Nearest breeding area of Tyrrhenian Flycatcher *M t tyrrhenica* to Tunisian populations is no more than 150 km, raising question whether it could also be nesting in North Africa.

423 Flycatchers / vliegenvangers *Muscicapa*, adults, Museu de Ciències Naturals de Barcelona, Spain, 18 May 2016 *(Michele Viganò)*. Four left birds: Hauta Kasdir, north-western Morocco, 7-18 July 1932; three right birds: Cubelles, Catalunya, Spain, 6 June 1952. Same specimens as in plate 422. Note that underparts colour and markings in North African specimens are similar to those in Mediterranean Flycatcher *M tyrrhenica*, while these are more like Spotted Flycatcher *M striata* in Iberian ones.

what similar), which might be described as 'electric' due to the very brief notes emitted in a rapid sequence, and their dry, strident, and high-pitched tone falling between 12 and 19 kHz. A practical way to describe this tone would be to liken it to a rusty bicycle wheel or to the sounds that can sometimes be heard near power lines. On a sonagram (figure 3), the shape of these high-frequency notes is very distinctive and visible, since they occupy a portion of the sonagram– above 12 kHz – that no other European bird exploits. The notes look like a thin, well-defined, uninterrupted line that begins at about 16 kHz then rises to 18-19 kHz – the highest frequency reached by the song – then drops precipitously to c 10-11 kHz or lower in the space of 0.02 seconds (Viganò 2015); similar results were recently found by Comolet-Tirman (2017). It should be stressed that these diagnostic high-pitched notes are very conspicuous and numerous in highly excited songs (eg, during interactions within the members of a couple – fast song, figure 3A and 3B), while in less excited song (eg, on a lazy session of territorial song from a high elevated perch – slow song, figure 3C) they can be much less frequent and thus the song sounds more similar to *striata*. In our experience anyway, even in the slowest song, some diagnostic high-pitched notes are always uttered.

In spring 2016, we recorded numerous individuals of *balearica* on Mallorca and Menorca, allowing us to present some general remarks on the song of this taxon: in the field, the general structure sounds extremely similar to that of the song of nominate *tyrrhenica*, including the diagnostic high-pitched elements that give it its distinctive electric tone. Looking at sonagrams (figure 4), it is evident that the maximum frequency reached by *balearica* is not quite as high as in nominate *tyrrhenica*, generally remaining below 15 kHz. We disagree with Comolet-Tirman (2018) about some recordings of *balearica* he analysed in his paper: he obtained similar results to ours but concludes that, even though generally higher pitched, the song of *balearica* does not have the short, strident, high-pitched notes of nominate *tyrrhenica*. Even though high-pitched notes of *balearica* have a maximum frequency usually between 12 and 15 kHz, they share the same structure and strident tone with the ones of nominate *tyrrhenica* and to our ears they sound extremely similar, just a tad less extreme and electric. The same considerations about the different number of high-pitched notes given for nominate *tyrrhenica* applies for fast (figure 4A) and slow songs (figure 4B and 4C) of *balearica*. In light of the above, it should be possible to differentiate between the songs of *striata* and *tyrrhenica* sensu lato by ear in the field at all times, and to distinguish the two subspecies of Mediterranean Flycatcher using sonagrams.

The song of *striata* and *tyrrhenica* sensu lato falls into the category of 'endless songs', namely vocalizations that are not organized into strophes repeated at regular intervals, but rather comprise improvised notes with no discernible pattern, uttered for a variable length of time. The notes included in these songs are very disparate: from low-frequency warbled notes reminiscent of certain parts of the song of Common Blackbird *Turdus merula* to very high-frequency notes around 10 kHz, which only a very few European species – such as Common Firecrest *Regulus ignicapilla* – reach; as stated, in *tyrrhenica* sensu lato, the highest frequency reached is even higher. The volume is always quite low, making it one of the least conspicuous European passerine songs.

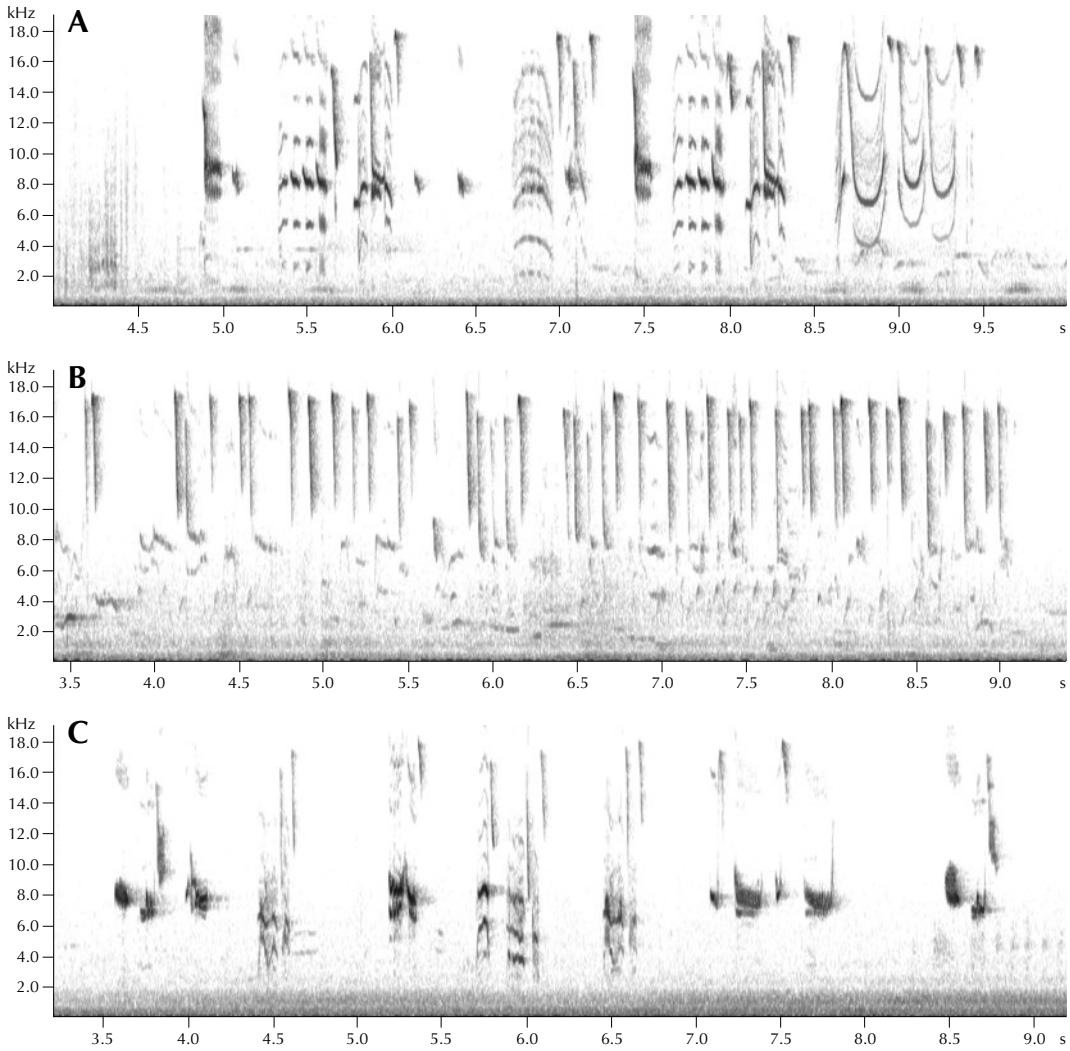

FIGURE 3 Tyrrhenian Flycatcher / Tyrreense Vliegenvanger *Muscicapa tyrrhenica tyrrhenica*, song. **A** Sardinia, Italy, 8 June 2015; **B** Corsica, France, 5 June 2015; **C** Capraia Island, Tuscan archipelago, Italy, 28 May 2015 *(Michele Viganò)*. Song is, in all European *Muscicapa*, without fixed scheme and uttered erratically and suddenly; however, some differences can be seen in sonagrams (and by ear once learned): both nominate *tyrrhenica* and Balearic Flycatcher *M t balearica* always include some notes of very high frequencies, unique among European passerines, giving song rather 'electric' quality (vertical lines on upper part of sonagram). In nominate *tyrrhenica*, these reach 17-19 kHz.

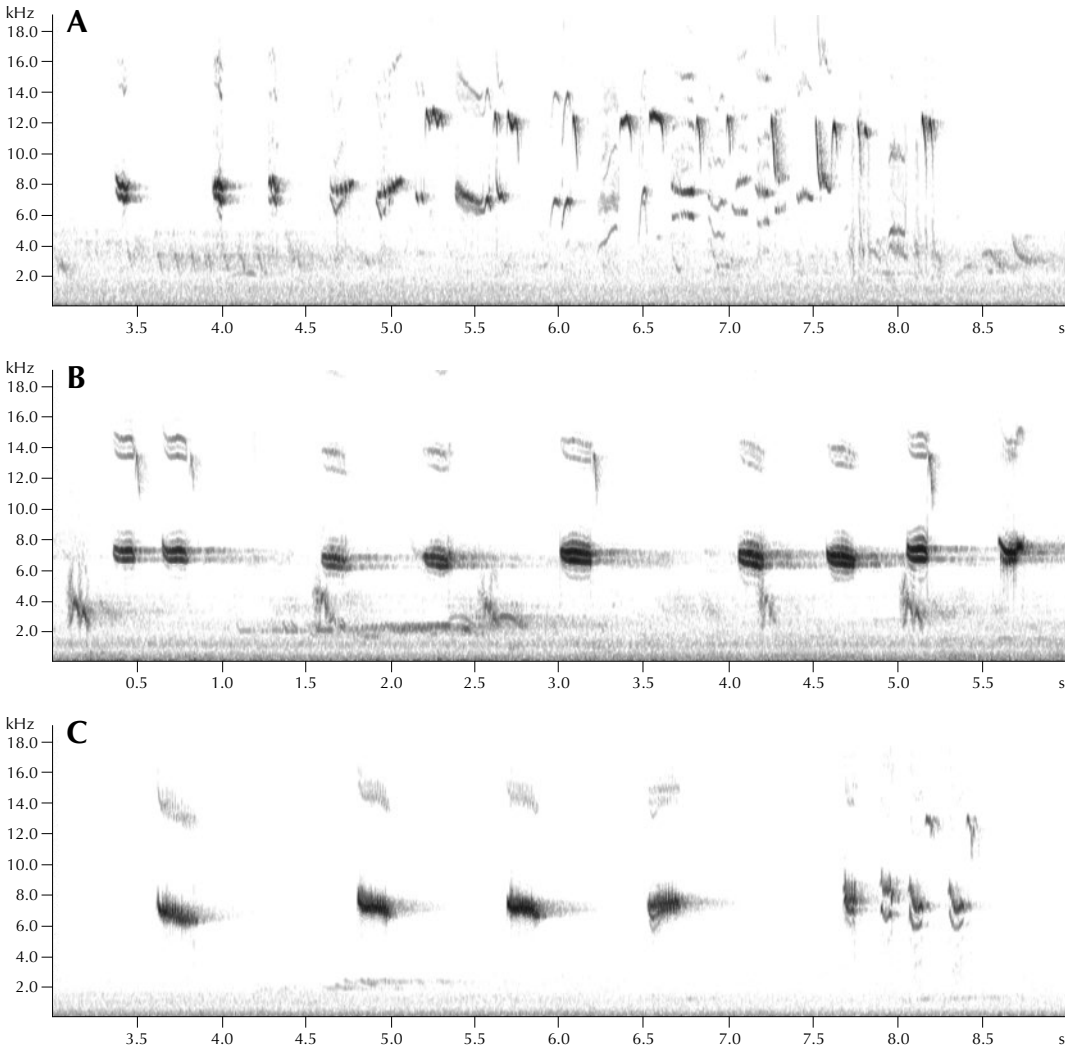

FIGURE 4 Balearic Flycatcher / Balearische Vliegenvanger *Muscicapa tyrrhenica balearica*, song. **A** Mallorca, Balearic Islands, Spain, 24 May 2016; **B** Mallorca, Balearic Islands, Spain, 27 May 2016; **C** Menorca, Balearic Islands, Spain, 28 May 2016 *(Michele Viganò)*. 'Electric' quality and notes typical of Tyrrhenian Flycatcher *M t tyrrhenica* can be heard also in *balearica*, although highest frequencies are slightly lower in *balearica*, being around 13/14 kHz (still much higher than in Spotted Flycatcher *M striata,* and sounding very differently). In slower songs (B and C), the diagnostic high-pitched notes are less frequent than in faster songs (A).

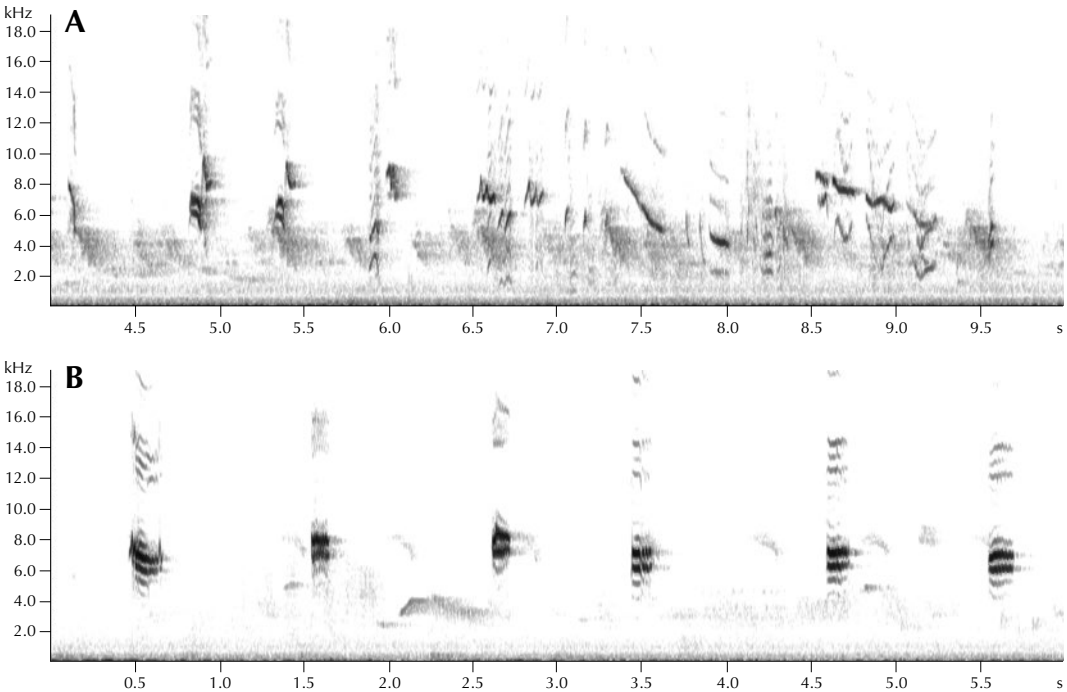

FIGURE 5 Spotted Flycatcher / Grauwe Vliegenvanger *Muscicapa striata*, song. **A** Sarigo, Varese, northern Italy, 18 May 2015; **B** Cadero-Veddasca, northern Italy, 26 May 2015 *(Michele Viganò)*. Song of Spotted is always very subdued and continuously improvised, heard mostly around sunrise and sunset: it alternates some slow-pace parts (B) with other much faster ones (A); during latter, it is easier to hear typical difference between this species and Mediterranean Flycatcher *M tyrrhenica*. As can be seen in these sonagrams, 'electric' high-pitched notes are missing in Spotted.

Conclusions and further research

Striata has a very large breeding range, and our studies did not comprehensively sample all populations. For instance, the easternmost taxa *sarudnyi* and *mongola* are not well represented in European museum collections. Nevertheless, the specimens we were able to analyse convinced us that further studies are needed: given their plumage characteristics and morphometrics, these eastern taxa may prove to be identifiable in the field in a European context, where autumn vagrancy is possible. While *neumanni* does not appear to be much different from *striata,* taxa from further east (*inexpectata, sarudnyi, mongola*) generally appear paler and less well-marked than European birds, with a variable degree of streaking on the underparts and crown, and plumage patterns that can sometimes be very similar to those of *balearica* or even nominate *tyrrhenica*. Some individuals seem to have an overall brownish wash, and in some cases the ground colour of the crown is whitish. Primary projection is generally longer than in nominate *tyrrhenica* and *balearica*, with a wing-tip/tail-tip ratio as in nominate *striata*, although p2 in *sarudnyi* can be shorter than or equal to p5. Crown streaking is generally heavy and well defined. Vocalizations are in need of further study.

The populations that require, however, the most urgent study are undoubtedly those from Iberia and North Africa. According to genetic analyses of Spanish and Tunisian individuals, they form a distinct group that is genetically different from all other *striata* analysed (from Europe and central Russia), and differentiated from them at about the same time as the split between the two subspecies of Mediterranean Flycatcher (Pons et al 2016). Once again, few specimens exist in museum collections but the ones we were able to study suggest that the situation is even more complicated. The Barcelona museum collection is of particular interest, as it provides the possibility to directly compare specimens taken during the breeding season

(June-July) in Spain and Morocco. Clear plumage and structural differences exist between specimens from these two countries: it is hard to believe that the individuals in plate 422-423 belong to the same taxon. In terms of biometrics, some – but not all! – of these North African individuals look very similar to *tyrrhenica* sensu lato. North Africa is as ecologically varied as the rest of the Mediterranean basin, and it could well host more than one taxon from the *striata* complex, as is the case with the Italian peninsula, where nominate *tyrrhenica* has recently been found along the Tyrrhenian coast of central Italy and on small islands off Sicily less than 150 km from the Tunisian coast. Studies on the Iberian-North African populations will shed more light on the evolutionary history of the *striata* complex in the Mediterranean, and we suspect that once again vocalizations will prove to be of crucial importance. For all taxa it would also be worthwhile to investigate more vocalizations than only song, such as contact calls (which are of more use for identifying out-of-range individuals). Mediterranean Flycatchers (especially *balearica*) are seen with some regularity along the Mediterranean coast of France and Spain in spring, probably due to overshooting. Therefore, spring is probably the best time to look for vagrants in central and northern Europe, a pattern matched by other species that share a similar breeding distribution, such as Moltoni's Warbler and Balearic Woodchat Shrike *Lanius senator badius*. Any putative claims of Mediterranean Flycatcher from central and northern Europe should be scrutinized very closely and ideally be assessed on the basis of: ***1*** very high-quality photographs showing the wing formula; ***2*** sound recordings; ***3*** primary projection and wing/tail ratio; and ***4*** precise plumage observations. In particular, in the absence of ***1*** and ***2***, reports of vagrants should not be accepted far away from the breeding range.

In the next years, the distribution of *striata* and nominate *tyrrhenica* in continental Italy will be studied to assess sympatry. When contact areas are found, it will be possible to study the interactions between these taxa.

As said before, until recently information on identification of these *Muscicapa* taxa was treated in only a few publications (Gargallo 1993, van Duivendijk 2011, Viganò & Corso 2015), and at first differences between nominate *tyrrhenica* and *balearica* were not shown. That explains why all extralimital Mediterranean Flycatchers are from recent dates.

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Samenvatting

Herkenning van Balearische Vliegenvanger Recent onderzoek naar *Muscicapa*-populaties in het centrale Middellandse Zeegebied laat zien dat deze de status van soort verdienen, Balearische Vliegenvanger *M tyrrhenica*. Na onderzoek aan morfologie en morfometrie kwamen er studies aan vocalisaties en genetica. Er bleken constante verschillen te zijn in zang en in nucleair en mitochondriaal DNA tussen continentale Grauwe Vliegenvanger *M striata* en de eilandpopulaties van Balearische. Twee ondersoorten van Balearische worden momenteel erkend: nominaat *M t tyrrhenica* broedt in Sardinië, Corsica, de Toscaanse archipel en delen van de Tyrrheense kust in Italië; de ondersoort *M t balearica* broedt op de Balearen. Voor beide ondersoorten is zeer weinig informatie over migratieroutes of overwinteringsgebieden beschikbaar. Structureel zijn beide onderling

vergelijkbaar en ze verschillen van Grauwe in kortere vleugellengte (*striata*: 85,5 mm, nominaat *tyrrhenica*: 81,6 mm, *balearica*: 78,9 mm). Anders dan bij Grauwe is daardoor de handpenprojectie van Balearische korter dan de lengte van de tertials. De vleugelvorm van Balearische is meer afgerond (p2 is gelijk of korter dan p5; handpennen van buiten naar binnen geteld). Hoewel de staart van Balearische even lang is als die van Grauwe, lijkt deze door de kortere vleugels in verhouding langer. De twee ondersoorten van Balearische verschillen onderling in verenkleed. Nominaat *tyrrhenica* heeft meestal een warme kleur van het verenkleed (bijna roodachtig), minder contrast tussen boven- en onderdelen, minder kruinstreping, uitgebreide maar slecht gedefinieerde streping op de onderdelen, goed gemarkeerde flanken en ondervleugels, en een subtiele maar karakteristieke roomkleurige tint op de keel. *Balearica* vertoont meer beige bovendelen, een sterk contrast tussen boven- en onderdelen, zeer goed gemarkeerde kruinstreping (zelfs meer dan bij *striata*), en zuiver witte onderdelen, flanken en ondervleugel met zeer kleine, dunne, en bleke streping beperkt tot bovenborst en keel. De algemene structuur van de zang van Balearische is vergelijkbaar met die van Grauwe: een schijnbaar willekeurige mix van lage en hoge tonen op laag volume en gedurende een variabele tijdsduur. De zang van Balearische verschilt echter van die van Grauwe door de aanwezigheid van veel hogere tonen (18-20 kHz in nominate *tyrrhenica*, 13-15 kHz in *balearica*). Deze zijn zowel in het veld als in sonagrammen detecteerbaar en diagnostisch. De zang van Balearische heeft daardoor een elektrische en schelle kwaliteit. De kennis over deze *Muscicapa*-soorten dient nog verder te worden onderzocht, met name op het Iberisch Schiereiland en in Noord-Afrika.

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Identification of hybrids Mediterranean x Black-headed Gull in Poland

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Hybridisation is regular in certain gull populations. Some hybrids are quite easily identifiable by their combination of genuine characters from the two parent species or may look much closer to one of them, but sometimes may look like a completely different species (cf Olsen & Larsson 2004, McCarthy 2006, Olsen 2018). From 2006 to 2017, many hybrids between Mediterranean Gull *Larus melanocephalus* (hereafter *melanocephalus*) and Black-headed Gull *Chroicocephalus ridibundus* (hereafter *ridibundus*) were studied in Poland. These were breeding birds, probable breeders which happened to be in a colony, and non-breeders. Hybridisation is undoubtedly favoured by the small numbers of *melanocephalus*. The Polish breeding population of *melanocephalus* in 2007-16 ranged from 55 to 97 pairs (Chylarecki et al 2018). This species remains an extremely scarce breeder, usually nesting singly or in small groups. By comparison, the breeding population of *ridibundus* in Poland is estimated at 90 000-100 000 pairs (Chodkiewicz et al 2015). In this paper, we discuss the identification of hybrids between these two species based on records from Poland.

Material and methods

The basic material regarding the nesting of *melanocephalus* x *ridibundus* hybrids was gathered within the framework of the project 'Monitoring of birds of Poland' (http://monitoringptakow.gios.gov.pl/about-project), in which *melanocephalus* is a key species. In 2006-17, there were 29 confirmed cases of nesting in 11 colonies and seven hybrids of which the breeding status could not be established. Some of these birds vigorously defended their territories and males courted female *melanocephalus* but there were also birds that were only seen flying over the colony. Outside the breeding season (March and April), three different hybrids were seen at three sites. Some of the breeding birds are found in the colonies annually, therefore the identification is based on a smaller number of individuals: 15 confirmed cases of nesting and five hybrids of which the breeding status could not be established.

If a hybrid brood was found, it was documented photographically, and the adult and young birds were ringed. The adults were sexed on the basis of behaviour and biometry. The paper concerns the identification of hybrids *melanocephalus* x *ridibundus* in the mating and breeding period. The division into the generations of hybrids was possible thanks to the rings. As a result, 13 hybrid nestlings were ringed, the progeny of *melanocephalus* x *ridibundus* or hybrid x *ridibundus* pairs; three of these were trapped many years later as breeding adults. From the knowledge about the ringed birds and the difference in coloration of primaries, the 'standard' appearance of these hybrids was described and classified for the purposes of this paper.

A classic example of a first-generation hybrid, regarded as the 'standard' for group I is a bird resembling the appearance of *melanocephalus* with a small amount of black on the primaries (see below for details). An additional criterion was knowledge about parents: 'pure' *melanocephalus* or *ridibundus*. The 'standard' of group II is a bird resembling the appearance of *ridibundus* with a lot of black on primaries (see below for details). Also in this case, the knowledge about the origin of the parents was helpful when creating groups: hybrid of *melanocephalus* or 'pure' *ridibundus*. The identification of hybrids is based on 20 birds: 15 from group I (with small amount of black on the primaries; cf plate 424, 428) and five from group II (with large amount of black on the primaries; cf plate 438).

Origin of birds recognized as group I and II

A bird recognized as a group I hatched at Przykona reservoir, Wielkopolska, in 2007 (plate 429, 436), the first recorded nestling of a male *melanocephalus* and a female *ridibundus*. There were three eggs in the nest and chicks hatched from two of them. This bird was recaptured for the first time in

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424 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 18 May 2013 (*Piotr Zieliński*). Group I, first-generation hybrid. Five primaries with black; four of them with distinct black mark on inner web. Outermost primaries white, others grey. Hood black. Eyelids distinct, interrupted behind eye. **425** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus,* Swarzędz, Wielkopolska, Poland, 17 June 2016 *(Tomasz Iciek).* Group I, first-generation hybrid. Five primaries with black; distinct black patch on three of them; only on p7, patch extending to both sides of shaft. Eyelids distinct, interrupted behind eye. **426** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus* (left), with Black-headed Gull, lake Ryn, Warmia-Mazury, Poland, 18 May 2013 *(Piotr Zieliński)*. Group I, first-generation hybrid. Same bird as in plate 424. Compared with Black-headed, this bird looks more similar to Mediterranean.

2013, on the same place, without confirmation of nesting. In 2015, a hybrid was monitored on a nest with three eggs, all of which were infertile. From biometric data it was inferred that the hybrid was a female, and the *ridibundus* a male. The other hatchling from the 2007 brood had a different appearance (plate 431-433, 437) (see below). In 2016, this bird formed a pair with a *ridibundus* but the clutch/brood was lost. Biometric data showed that the hybrid was a male and the *ridibundus* a female.

A second-generation hybrid was ringed as a chick at lake Ryn, Warmia-Mazury, on 18 May 2011 (plate 439-441, 447). The father was a hybrid *melanocephalus* x *ridibundus* with primaries coloured as in group I birds (plate 427-428) and the mother was a *ridibundus*. There were three eggs in the nest but one disappeared during incubation; two chicks hatched. This bird was photographed for the first time flying over the lake Ryn colony in 2014. At the time, this bird was thought to be an atypically coloured *ridibundus* (the underside of

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427 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 19 May 2014 *(Piotr Zieliński)*. Group I, first-generation hybrid. Five primaries with black markings; small patch on p9; p6-8 have black patch extending right across feather and very large white tip. Three outermost primaries white, others grey. Hood dark. Eyelids distinct, interrupted behind eye. **428** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 18 May 2013 *(Piotr Zieliński)*. Group I, first-generation hybrid. Same bird as in plate 427. A few outer primaries are white above, inner ones grey. Pattern on primary tips clearly discernible. **429** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, Przykona reservoir, Wielkopolska, Poland, 11 May 2015 *(Tomasz Iciek)*. Group I, first-generation hybrid. Five primaries with black marking, extending right across feather on p6-9, which have large white tip. From this angle and in this light, primaries give impression of being uniformly coloured. Bar across distal part of p9 differs in intensity on left and right wing. **430** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 15 May 2012 *(Piotr Zieliński)*. Group I, first-generation hybrid. Five primaries with black; on p9 incomplete bar and isolated, longitudinal patch on outer web. Barring on p6-8 complete; these feathers have large white tip. Hood dark. Eyelids distinct, interrupted behind eye.

431 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 19 May 2016 *(Piotr Zieliński)*. Group I, first-generation hybrid. Same bird as in plate 432-433. Three outermost primaries white and inner ones grey, seen from above.

432 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 19 May 2016 *(Piotr Zieliński)*. Group I, first-generation hybrid. Same bird as in plate 431 and 433.

433 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 19 May 2016 *(Piotr Zieliński)*. Group I, first-generation hybrid. Same bird as in plate 431-432. From this angle easily mistaken for adult Mediterranean. Black hood, scarlet bill with clearly visible yellow tip. White eyelids interrupted behind eye. Steep forehead. All primaries pale, with no black.

both primaries was evidently paler than the norm). The bird was ultimately identified by the characteristic pattern on the primaries and the ring it carried. The same bird was recaptured on 17 May 2017. This bird, a female based on biometric data, formed a pair with a male *ridibundus*. There were two eggs in the nest, both infertile. The clutch was incubated until the end of May and then lost.

Identification of hybrids

When two species interbreed, the offspring will have different combinations of parental characteristics. Nevertheless, the hybrids studied retained a similar appearance, both in the pattern on the primaries and in the colour of the head. This enabled the hybrids to be divided into two groups: group I (small amount of black on the primaries) and group II (large amount of black on the primaries). Group I hybrids are the ones most often reported in breeding colonies. Birds of such an appearance have been seen elsewhere in Europe (eg, http://birdhybrids.blogspot.com, http://bhgull.be/news.html). Group II hybrids, resembling a *ridibundus*, are much rarer. There was, however, one first-generation hybrid with wings differently marked than those in group I (see below; plate 431-433).

Distinguishing a hybrid *melanocephalus* x *ridibundus* is not particularly difficult but it does require close scrutiny of the various parts of the plumage. Regardless of where hybrids are observed – breeding grounds in Poland, wintering grounds elsewhere in Europe – they are sometimes misidentified as second-cycle (second-summer) *melanocephalus* or as *ridibundus*.

Changes in the pattern on the primaries due to age and moulting do not significantly affect identification. So far, two birds have been found in which the primary pattern had changed. In both cases, the area of black on these feathers became smaller and there was more white at the tip. In one of these birds, the number of primaries with black decreased from six to five, in the other there was no such change. However, these changes were not sufficient to reclassify these birds from group II to group I.

Identification of group I hybrids (small amount of black on primaries)

Group I hybrids resemble *melanocephalus* in second-summer plumage, mostly because of the small amount of black (subterminal bar at the tip of five primaries), pale underwing, black hood and scarlet bill (plate 424-426). Depending on the light conditions, all primaries are pale and translucent. The upperwing appears rather uniformly coloured but the three outermost primaries are white and translucent while the inner ones are darker, grey. A bird standing in a colony is distinguished from *ridibundus* by its black hood, distinct white eyelids, heavier bill contrasting with the hood and larger body size. The distribution of black on the folded wing is similar to that in *melanocephalus*.

Head

In breeding plumage, all hybrids (group I) have a uniformly black hood, the extent of which is intermediate between that in *melanocephalus* and *ridibundus*. Only in the hand, chocolate-brown feathers evenly distributed all over the hood become visible. The white eyelids, very conspicuous both above and below the eye, consist of two sickle-shaped lines of the same width, always clearly separated by the eye. The appearance of the eyelids is very similar in all hybrids and almost identical to that in *melanocephalus*. The readily visible orbital ring is dark red, sometimes as dark as the hood, blackish-red or non-uniformly coloured (cf plate 434). The bill is quite heavy with a distinct gonys. Most birds have a uniformly coloured bill; just a few have a brighter, yellowish tip. Black in the form of a subterminal band is rare and may be visible on the upper and/or lower mandible.

Pattern on primaries

The pattern on the primaries of hybrids (group I) is fairly characteristic and of roughly the same type within this group. The great majority (n=15) of this group has black on five outer primaries (p6-10), although the black on p10 occurs only on the outer web along the shaft (plate 427-429). P9 is usually white but some birds have small black spots near the tip of the feather or with black barring of varying appearance. P6-8 have a terminal bar of varying extent, on which the black on both sides of the shaft reaches the outer edge of the feather, and only on the inner web the marking spreads along the edge for a short distance. In most birds with complete barring (on both sides of the shaft), the shaft between them is white, clearly separating them. Such bars are then asymmetrical, being narrower on the outer than on the inner web. As yet, only one group I bird has been found with a very conspicuous, longitudinal black patch halfway along p9 (plate 430, figure 1). This patch, on the outer web, was well separated from the band. The outermost three primaries in all hybrids are white, the inner ones are grey. The

FIGURE 1 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus* x *Chroicocephalus ridibundus*. **A** lake Ryn, Warmia-Mazury, Poland, 16 May 2011 *(Piotr Zieliński)*; **B** Swarzędz, Wielkopolska, Poland, 17 June 2016 *(Tomasz Iciek)*; **C** lake Ryn, Warmia-Mazury, Poland, 16 May 2011 *(Piotr Zieliński)*; **D** Przykona reservoir, Wielkopolska, Poland, 17 June 2013 *(Tomasz Iciek)*; **E** lake Ryn, Warmia-Mazury, Poland, 16 May 2011 *(Piotr Zieliński)*; **F** lake Ryn, Warmia-Mazury, Poland, 19 May 2016 *(Piotr Zieliński)*. Group I, first-generation hybrids. Five primaries with black. Barring partial, limited to inner web, or complete. P10 with no bar, sometimes small dot. P9 without bar or with partial or complete bar. There may also be isolated black patch on this feather. Primaries with complete bar may sometimes have white shaft and always large white tip. Bars themselves have irregular, asymmetrical edges but do not spread to outer edge of feather, although they do sometimes reach inner edge. Some hybrids from this group have primaries with no black (figure 1F).

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434 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus* (left), with Black-headed Gull, lake Ryn, Warmia-Mazury, Poland, 19 May 2015 *(Piotr Zieliński)*. Group I, first-generation hybrid. Distinct pattern on primaries, alternately black and white; black bands triangular in outline. Head darker than in Black-headed. Hood extending further down nape. Conspicuous white eyelids broken behind eye. Bill relatively thin, red, with distinct gonys. **435** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus,* Swarzędz, Wielkopolska, Poland, 17 June 2016 *(Tomasz Iciek)*. Group I, first-generation hybrid. Very little black on primaries. Bar interrupted by white shaft. Dark hood extending far down nape. Conspicuous white eyelids broken behind eye. Bill long, thin, red with yellowish tip. **436** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, Przykona reservoir, Wielkopolska, Poland, 11 May 2015 *(Tomasz Iciek)*. Group I, first-generation hybrid. Distinct pattern on primaries, bars rectangular in outline. Edge of folded wing white. Head distinctly darker than in Black-headed. Hood extending far down nape. Conspicuous white eyelids interrupted behind eye. Bill relatively thin, dark red with black band. **437** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, with Black-headed Gulls, lake Ryn, Warmia-Mazury, Poland, 19 May 2016 *(Piotr Zieliński)*. Group I, first-generation hybrid. Same bird as in plate 431-433. Uncanny resemblance to adult Mediterranean. Black hood extending quite far down nape. Delicate scarlet bill with obvious yellow tip but no distinct gonys. Conspicuous white eyelids interrupted behind eye. Folded wing pale.

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438 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus,* lake Ryn, Warmia-Mazury, Poland, 16 May 2017 *(Piotr Zieliński)*. Group II, second-generation hybrid. Pattern on underside of wing resembling that of Black-headed but with reduced amount of black. Six outer primaries with black. Complete black bar is crossed by white shaft on some of p6-10. Inner web of p5-8 distinctly dark. Two outermost primaries with less black than others. Black on p5 takes form of small patch on inner web. Primaries clearly white tipped. Hood dark. **439** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 17 May 2017 *(Piotr Zieliński)*. Group II, second-generation hybrid. Same bird as in plate 440 and 442. Pattern on underside of wing resembling that of Black-headed but with less black. Six outer primaries with black. P10 with black on outer web and incomplete bar on inner web. P6-9 with complete black bar and dark inner web. Black on p5 forming small patch on inner web. Primary tips with less white. Black at distal part of two outermost primaries covering smaller area than on others. Three outermost primaries white, others grey. Hood dark. Conspicuous eyelids, interrupted behind eye. Bill short, thin, with distinct gonys. **440** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 17 May 2017 *(Piotr Zieliński)*. Group II, second-generation hybrid. Same bird as in plate 439 and 442. Depending on lighting, underside of primaries appears darker than it actually is. **441** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 19 May 2015 *(Piotr Zieliński)*. Group II, second-generation hybrid. Six primaries with black. On p9 evident, isolated streak along shaft. Outer and inner web of other primaries have narrow, quite long streaks, which do not become blurred as in bird in plate 438, for example.

442 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus* (right), with Black-headed Gull, lake Ryn, Warmia-Mazury, Poland, 16 May 2017 *(Piotr Zieliński)*. Group II, second-generation hybrid. Underside of wing brighter than in Black-headed: direct comparison showing this quite clearly. Hood dark. Bill red.

primaries with a complete black bar on the distal part have a large white tip.

Standing birds
For description of the hood and bill, see above (cf plate 434, 436-437). The pattern on the primaries of the folded wing is alternated black and white. In hybrids with primaries with a complete band, these black and white markings cover a very similar area (plate 435). The most important feature distinguishing hybrids from second-cycle (second-summer) *melanocephalus* is the pattern of the outermost primaries. The outer web of the primaries in *melanocephalus* is black, and this produces a black line on the folded wing, absent in group I hybrids. The feature is visible in birds where the wing is not obscured by the tertials. So far, only one had an aberrant wing pattern (plate 431-433, figure 1). Regardless of the light conditions and observation distance, this bird looked like an adult *melanocephalus* because of its pale primaries, black hood, obvious eyelids interrupted behind the eye, scarlet bill with yellow tip and larger body size. Only closer inspection revealed a contrast between the three white outermost primaries and the grey inner ones. There was a short tiny black patch only on the outer web of p10, and a short black band on the inner web of p7-8. In principle, all the features of this bird's head were similar to *melanocephalus*, except for the finer bill and the size of the hood, which did not extend so far back on the nape. Standing in a colony, this bird could easily be mistaken for a *melanocephalus*, were it not for its different outline and less extensive hood.

Identification of group II hybrids (large amount of black on primaries)
Group II hybrids resemble *ridibundus* more closely than a second-cycle (second-summer) *melanocephalus*. This similarity is considerable because of the greater number of primaries with black (six primaries: p5-10) and the greater extent of black on the feathers (plate 438-442) compared with group I hybrids. The most visible features 'not corresponding' with the appearance of *ridibundus* are the distinctly black hood and the contrasting red bill. The upper and lower primary surfaces are

coloured as in *ridibundus*, except that the underside of the hand is less intensely coloured, and the dark tip to the feathers is broad and covers a large area. A bird standing in the colony is distinguished by its black hood, conspicuous white, separate eyelids, heavier bill contrasting with the hood and generally larger body size. The black on the closed wing is distributed in the same way as in *ridibundus*, except that all primaries have a quite small but conspicuous white tip.

Head

The hood appears blackish in birds observed from a longer distance. In birds in close up or in the hand, chocolate-coloured feathers cover a large area, although towards the nape the hood becomes darker, especially at the edges. The shape and extent of the hood is intermediate between *ridibundus* and *melanocephalus*. Some birds have quite a flat forehead, which in combination with the long and not very heavy bill gives the head a shape similar to a *ridibundus*. The eyelids are very distinct and consist of two white sickles above and below the eye, interrupted behind it. The sickle above the eye is very broad, while the lower one becomes narrower towards the bill in some birds. The white eyelids in *ridibundus* are narrower and usually not interrupted behind the eye, although the narrowing may sometimes be interpreted as an interruption. The orbital ring is dark orange, fairly well visible. The bill is quite long (shorter in females) and not very heavy but in some birds the gonys is very distinct. Although the bill is dark, it contrasts clearly with the hood. It is mostly uniformly coloured, although some birds may have an indistinct dark subterminal band at the gonys and, exceptionally, a brighter area near the tip.

Wing pattern

The colouring of the primaries in group II hybrids is similar to *ridibundus*, and any differences between the individual birds are found solely in the extent of black on single feathers (plate 443-444). All birds have black on six primaries (p5-10) as well as a complete band on all primaries, a feature typical of this group (plate 438-442). Also characteristic is the area of black on p9-10, which is almost half as large as on p6-8, a pattern similar to that in *ridibundus*. P10 has, besides a black web, a bar on either side of the shaft, clearly interrupted or incomplete (reduced to the inner web only). The bar on p9 is usually not interrupted, on p8 it is very broad, and the black there spreads along the outer edge of the inner web over a distance exceeding the width of the bar itself. P7 is coloured in a very similar way, except that the black along the inner edge of the web is shorter. In one bird, there was, in addition, a blurred patch halfway along p10 and a very distinct, longitudinal patch along the outer web of p9 (plate 441). The innermost primary with black (p5) usually has a bar only on the inner web; only one bird had an additional small patch on the outer web. Some birds also have all or most of the barring clearly

443 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 17 May 2017 *(Piotr Zieliński)*. Group II, second-generation hybrid. Wing of bird in plate 438. Black on six primaries. On p6-10, complete black bar interrupted by white shaft. P5 with black patch on inner web. Bar on p10 is broken. Black patch on inner edge in all primaries. All feathers have large white tip. **444** Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 17 May 2017 *(Piotr Zieliński)*. Group II, second-generation hybrid. Wing of bird in plate 439-440 and 442. Black on six primaries. P10 with black outer web and partial bar. P6-9 with complete black bar and small white tip and black on inner edge. P5 with black patch on inner web.

445 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, with Black-headed Gulls, lake Ryn, Warmia-Mazury, Poland, 19 May 2017 *(Piotr Zieliński)*. Group II, second-generation hybrid. Much black on folded wing and distinct white tips to primaries. Wing edge white. Dark hood not extending far down nape. Conspicuous eyelids, interrupted behind eye. Bill with distinct gonys.

446 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 20 May 2017 *(Piotr Zieliński)*. Group II, second-generation hybrid. Same bird as in plate 438 and 443. Large area of black and obvious white tip on primaries can be seen on folded wing. Bars interrupted by white shaft. Wing edge white. Dark hood not extending far down nape. Conspicuous eyelids, interrupted behind eye. Bill thin with distinct gonys.

divided by the white shaft. The underside of the primaries is dark; when compared side-by-side with the brighter ones of *ridibundus*, the primaries give the impression of being incompletely pigmented. Apart from the dark bar at the tip, p10 is uniformly white, with only a few birds showing a slight darkening. The inner edge of p9 is quite clearly darker. In strong light, the two outermost primaries on the partially folded wing give the impression of being uniformly brightly coloured (except for the barring near the tip). The inner dark edge of p5-8 is distinct and connected with the barring. Right by the barring, the edges are the darkest, becoming brighter towards the feather base. The edges of the primaries in some birds are narrower, shorter, but also more contrasting. The upshot is that narrow, contrasting streaks form on the undersides of the primaries. Above, the three outermost primaries are white and the inner ones are grey.

Standing birds

Group II hybrids standing in a *ridibundus* colony draw attention by their darker hood, contrasting bill, obvious eyelids and generally larger body size. In all birds, the primaries have a uniformly black distal part with a conspicuous, although not very large, white tip (plate 445-447). Depending on the intensity of the longitudinal, black patches along the shaft (p9), a dark, possibly isolated, edge forms on the folded wing. The edge of the folded wing is white. The folded wing in a second-cycle (second-summer) *melanocephalus* also has a black edge, except that the white tips of the primaries are larger, and the black on them is in the form of transverse barring.

Conclusion

Adult *melanocephalus* x *ridibundus* hybrids in the breeding season have a set of stable features pointing to their origin. All such birds recorded so far have shown up to three white outer primaries (Olsen & Larsson 2004, Olsen 2018), a feature typical of *ridibundus*. Nearly all birds have shown black on the primaries in the form of barring near the feather tip. The outer primaries may have an isolated longitudinal black patch along the shaft, which makes the pattern similar to that of *melanocephalus*. The difference is that in a second-cycle (second-summer) *melanocephalus* the black spreads distinctly a good way along the shafts of several feathers and on some feathers is connected with the barring. The underside colour of primaries in group II birds is more similar to that of *ridibundus* than to that of group I hybrids. When observing a single bird, one may get the impression

447 Hybrid Mediterranean x Black-headed Gull / hybride Zwartkopmeeuw x Kokmeeuw *Larus melanocephalus x Chroicocephalus ridibundus*, lake Ryn, Warmia-Mazury, Poland, 17 May 2017 *(Piotr Zieliński)*. Group II, second-generation hybrid. Same bird as in plate 439-440 and 442. Looking very much like Black-headed. Edge of folded wing white. White tips on primaries rather small but obvious on all these feathers. Black on p6 only on inner web. Underside of outermost primary almost wholly white. Hood darker than in Black-headed and extending farther down nape. Conspicuous eyelids, interrupted behind eye. Bill short and thin.

that it is merely a trick of the light but this passes in direct comparison with *ridibundus*. The most features that adult hybrids acquire from *melanocephalus* are on their head. In the field, the hood always appears black. The bill colouring always contrasts clearly with the hood, in the same way as the white eyelids, interrupted behind the eye. Birds with this plumage colouring differ quite distinctly from hybrids between *melanocephalus* and Common Gull *L canus* (cf Pullan & Martin 2004, Garner & Lound 2012, Olsen 2018). Nesting of mixed pairs of *melanocephalus* with other gull species is definitely quite frequent. The relatively large number of *melanocephalus* x *ridibundus* hybrids recorded in Poland cannot be attributed to the country's geographical position, although it could be a result of the small number of breeding *melanocephalus* there.

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Samenvatting
Herkenning van hybriden Zwartkopmeeuw x Kokmeeuw in Polen Dit artikel bespreekt de herkenning van hybriden tussen Zwartkopmeeuw *Larus melanocephalus* en Kokmeeuw *Chroicocephalus ridibundus* in paar- en broedtijd, gebaseerd op gevallen in Polen. In 2006-17 waren er 29 gedocumenteerde gevallen van het nestelen door hybriden in 11 kolonies en zeven hybriden waarvan de broedstatus niet kon worden vastgesteld. Een deel van de hybride broedvogels verblijft echter ieder jaar in de kolonies waardoor de herkenning is gebaseerd op een kleiner aantal individuen: 15 bevestigde broedvogels en vijf hybriden waarvan de broedstatus niet kon worden vastgesteld. De indeling in de verschillende generaties hybriden was mogelijk dankzij het ringen van nestjongen en terugvangsten als adult. 13 hybride nestjongen werden geringd, namelijk de nakomelingen van gemengde paren Zwartkopmeeuw x Kokmeeuw of gemengde paren van een hybride en Kokmeeuw; drie daarvan werden jaren later als adulte broedvogels teruggevangen. De determinatiekenmerken van hybriden zijn gebaseerd op 20 vogels: 15 van de zogenoemde 'groep I' (met weinig zwart op de handpennen) en vijf van 'groep II' (met veel zwart op de handpennen).

Het herkennen van een hybride Zwartkopmeeuw x Kokmeeuw is niet heel moeilijk maar een nauwkeurige bestudering van verschillende onderdelen van het verenkleed is noodzakelijk. Onafhankelijk van waar hybriden worden waargenomen – in de Poolse broedgebieden of overwinteringsgebieden elders in Europa – worden ze soms foutief gedetermineerd als 'second-cycle' (tweede-zomer) Zwartkopmeeuw of als Kokmeeuw. Verandering in het patroon op de handpennen als gevolg van voortschrijdende leeftijd en rui beïnvloedt de herkenning niet. Adulte hybriden Zwartkopmeeuw x Kokmeeuw in de broedtijd hebben enkele constante kenmerken die hen als hybride kenmerken. Alle hebben tot drie witte buitenste handpennen, een typisch kenmerk van Kokmeeuw. Vrijwel alle vogels vertoonden zwart op de handpennen in de vorm van een band nabij de veertop. De buitenste handpennen hebben soms een geïsoleerde langwerpige zwarte vlek langs de veerschacht, wat herinnert aan het patroon bij Zwartkopmeeuw. Het verschil is dat bij een 'second-cycle' (tweede-zomer) Zwartkopmeeuw het zwart duidelijk over een langere afstand langs de schacht van meerdere handpennen loopt en op sommige handpennen verbonden is met de zwarte band nabij de top. De kleur van de onderzijde van de handpennen lijkt bij hybriden van 'groep II' meer op die van Kokmeeuw dan op de kleur bij hybriden van groep I. Bij het waarnemen van een enkele vogel kan dat soms een belichtingseffect lijken maar bij directe vergelijking met een Kokmeeuw valt het op. De meeste 'Zwartkopmeeuwkenmerken'

van adulte hybriden hebben betrekking op de kop. In het veld komt de kop altijd zwart over. De snavelkleur contrasteert duidelijk met de kop, evenals de witte 'oogleden', die onderbroken zijn achter het oog.

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Amerikaanse Tafeleend bij Zuidhorn in januari-maart 2016

Gertjan van Noord, Alwin van Lubeck & Willem-Jan Fontijn

Op dinsdagen werk ik (GvN) vaak thuis en dan is er altijd wel even tijd om een rondje te lopen. Dan loop ik meestal, net als op dinsdagochtend 19 januari 2016, over het Aduard 800-pad, van Aduard langs het Van Starkenborghkanaal in de richting van Noordhorn, Groningen. Het was koud en somber en de voorgaande nachten had het gevroren. Op het Van Starkenborghkanaal zwommen veel eenden, waaronder 10-tallen Kuifeenden *Aythya fuligula*, 100en Krakeenden *Mareca strepera*, Smienten *M penelope,* Wilde Eenden *Anas platyrhynchos* en enkele Wintertalingen *A crecca*. Wintertalingen zwemmen hier niet zo vaak dus ik lette wat beter op de eenden dan gewoonlijk. Ter hoogte van de Spanjaardsdijk zag ik ook een eend die ik determineerde als mannetje Tafeleend *A ferina*. Dit is een schaarse soort op het kanaal dus maakte ik een paar foto's. Na de wandeling voerde ik de vogel als Tafeleend met een foto in op www.waarneming.nl. Twee dagen later kreeg ik van Menno Hornman van Sovon Vogelonderzoek Nederland een opmerking bij de waarneming. Hij vermoedde dat het mogelijk om een hybride Tafeleend x Witoogeend *A ferina x nyroca* ging. Omdat hij ook niet zeker van zijn zaak was vroeg ik het forum van www.waarneming.nl om advies. Op verzoek voegde ik alle andere foto's die ik nog had aan de waarneming toe. In de discussie die daarop volgde werd duidelijk dat het een Amerikaanse Tafeleend *A americana* betrof, een potentiële nieuwe soort voor Nederland! Ondertussen waren er al een paar dagen verstreken en enkele zoektochten bleven helaas zonder resultaat.

Twee weken later, op dinsdag 2 februari, liep ik aan het eind van de ochtend hetzelfde rondje. Het

448 Amerikaanse Tafeleend / Redhead *Aythya americana*, adult mannetje, Van Starkenborghkanaal, Zuidhorn, Groningen, 13 maart 2016 *(Jos van den Berg/birdingtexel.com)*

449 Amerikaanse Tafeleend / Redhead *Aythya americana*, adult mannetje, Van Starkenborghkanaal, Zuidhorn, Groningen, 9 februari 2016 *(Ruud E Brouwer)* **450-452** Amerikaanse Tafeleend / Redhead *Aythya americana*, adult mannetje, Van Starkenborghkanaal, Zuidhorn, Groningen, 11 februari 2016 *(Arnoud B van den Berg)*

weer was dit keer een stuk aangenamer. Tot mijn verrassing zwom de eend er weer, en op precies dezelfde plek als twee weken eerder. Ik meldde dit in dezelfde forumdiscussie en een uurtje later voerde ik de waarneming in met enkele goede foto's. Het duurde niet lang voor de eerste twitchers arriveerden en gedurende de rest van de dag werd hij nog door vele 10-tallen vogelaars gezien en gefotografeerd. Ondanks vele bezoeken werd hij in de periode daarna slechts af en toe waargenomen en opmerkelijk genoeg alleen op het kanaal. Na 2 februari werd hij gezien op 7, 9, 11, 14, 18 en 19 februari en op 1, 4, 9, 12 en 13 maart (Slaterus et al 2016ab; www.waarneming.nl). Waar hij in de tussentijd verbleef is nooit duidelijk geworden. Hij werd waargenomen tussen Aduard, Noordhorn en Zuidhorn, over een lengte van bijna 6 km van het kanaal.

De waarneming werd ingediend bij de Commissie Dwaalgasten Nederlandse Avifauna (CDNA). Na lang beraad, dat vooral ging over enige beschadigingen aan het verenkleed (zie onder) is de vogel aanvaard als eerste geval voor Nederland (Haas et al 2017).

Beschrijving

De beschrijving is gebaseerd op foto's en videobeelden van vele fotografen (cf www.dutchbirding.nl, www.waarneming.nl, www.youtube.com; Dutch Birding 38: 194, plaat 298, 256, plaat 391, 2016, 39: 365, plaat 514, 2017).

GROOTTE & BOUW In directe vergelijking iets kleiner dan Wilde Eend maar duidelijk groter dan Kuifeend. Bouw op Tafeleend lijkend, maar met steil voorhoofd en rondere kop (vooral achterhoofd). Piek van kruin net

voor of boven oog. Afhankelijk van houding en gemoedstoestand duidelijke bult op voorhoofd te zien. Snavel recht en niet direct overlopend in voorhoofd. Neusgat vrij lang en snavelnagel fors (op sommige foto's goed zichtbaar). 'Loral bulge' (grens tussen bevedering van kop en snavel) vrijwel verticaal.
KOP Kopkleur in veld vaak lastig in te schatten door grijs weer. Op meeste foto's vrij donkerrood maar op foto's met betere lichtomstandigheden duidelijk lichter, meer oranjerood.
BOVENDELEN Bovenrand van mantel zwart, rest van mantel, rug en schouderveren grijs met dichte en zeer fijne donkergrijze dwarsbandjes. Stuit grotendeels grijs met zwartige vlekken, onderste deel van stuit vrijwel uniform zwart. Bovenstaartdekveren zwart.
ONDERDELEN Bovendeel van hals roodbruin als kop. Onderste deel van hals en borst zwart. Zwarte borst vrij ver doorlopend tot voorbij vleugelboeg, verder dan bij Tafeleend (vooral in vlucht opvallend). Flank als mantel en rug getekend maar iets lichter grijs. Buik vuilwit. Onderstaartdekveren zwart.
VLEUGEL Bovenvleugel met opvallende lichtgrijze streep over gehele lengte van vleugel. Handpennen en armpennen lichtgrijs. Handpennen en enkele buitenste armpennen met donkere top. Donkere toppen naar binnenste armpennen toe subterminaal en vervagend. Binnenste armpennen met witte top, witte vleugelachterrand vormend. Meeste tertials grijs tot donkergrijs, enkele echter meer donkerbruin en dof ogend. Grote dekveren grijsbruin, middelste en kleine dekveren grijs. Duimvleugel bruin, handdekveren bruingrijzig. Op ondervleugel overwegend grijs-wit contrast. Handpennen, armpennen en grote dekveren lichtgrijs. Handpennen met donkere top. Okselveren en merendeel van dekveren wit. Op vleugelvoorrand smal donker lijntje gevormd door bruinige kleine dekveren.
STAART Staartpennen grijsbruin met lichte veerranden.
NAAKTE DELEN Snavel licht blauwgrijs met brede zwarte punt en witachtige subterminale band, vrijwel verticaal over snavel lopend. Mondhoek zwart, doorlopend als dun zwart lijntje over snijrand van bovensnavel. Neusgat donker. Oog geel met licht oranjeachtige tint. Poot grijs.
RUI & SLEET Toppen van buitenste vier handpennen van rechtervleugel beschadigd. Enkele tertials wat slijtage vertonend. Aan linkerzijde van staart een of twee binnenste pennen ontbrekend.
GEDRAG Tijdens bijna twee maanden durend verblijf op slechts 13 dagen waargenomen, altijd vliegend boven of zwemmend op kanaal; nooit aangetroffen op andere geschikte plekken in omgeving. Meestal zwemmend bij groep Wilde Eenden maar af en toe ook in gezelschap van groepje Kuifeenden. Vaak hoog op water, vrijwel altijd met staart omhoog. Afstand houdend en bij benadering vaak snel opvliegend. Regelmatig samen met andere eenden rustend op basaltblokken langs oever van kanaal.

Determinatie en leeftijd

Leeftijd
De zuiver grijze bovendelen en flank met de scherp afgetekende donkergrijze dwarsbandering, de geheel zwarte borst die strak gescheiden was van de witte buik en de heldere, volledig uitgekleurde snavel wijzen op een adult mannetje van één van de drie soorten 'tafeleenden' (Tafeleend, Amerikaanse Tafeleend en Grote Tafeleend *A valisineria*). Een eerste-winterkleed zou nog uitgebreide juveniele (bruine) veerpartijen vertonen op onder meer stuit, bovenvleugeldekveren en onderdelen, waarbij borst- en buiktekening min of meer in elkaar overlopen. Ook zou de snavel van een jonge vogel doffer gekleurd zijn en minder scherp afgetekend.

Determinatie
De combinatie van onder meer de oranjerode kop met steil voorhoofd, donkergrijze bovendelen en flank, licht geeloranje iris en blauwgrijze snavel met lichte subterminale band en brede zwarte snavelpunt past goed op Amerikaanse Tafeleend. Een adulte Grote Tafeleend kon eenvoudig worden uitgesloten want die heeft onder meer: ***1*** een opvallend kopprofiel met een zeer platte kruin en voorhoofd en een lange concave snavel die bijna in een rechte lijn doorloopt; ***2*** een dieper rood gekleurde kop met een zwartachtige tekening op voorhoofd en rondom het oog; ***3*** zeer lichtgrijze tot bijna witte bovendelen en flanken met heel fijne lichtgrijze dwarsbandering; ***4*** een geheel zwarte snavel; en ***5*** een rode iris. Een adult mannetje Tafeleend is te onderscheiden aan de hand van: ***1*** een meer driehoekig kopprofiel met een platter voorhoofd en met de piek van de kruin duidelijk net achter het oog; ***2*** lichtgrijze bovendelen en flank; ***3*** het minder ver naar achteren doorlopende zwart van de borst; ***4*** een zwarte snavel met een grijzige band over het voorste deel; en ***5*** een rood oog (Madge & Burn 1988, Sibley 2014, Reeber 2015).

Hoewel de determinatie van mannetjes van deze drie soorten tafeleenden op het eerste gezicht eenvoudig lijkt, zorgt vooral het onderscheid met Tafeleend en gelijkende hybriden vaak voor problemen. Diverse kenmerken die van cruciaal belang zijn voor een juiste determinatie, zoals bouw en kleur van het verenkleed, snavel en oog, zijn om allerlei redenen soms lastig te beoordelen en kunnen leiden tot discussies en verschillen in interpretatie. Zo was bij de vogel van Zuidhorn volgens sommigen de rode kleur van de kop te donker (wat op een hybride zou kunnen wijzen) maar hierbij leek belichting een belangrijke rol te spelen. Het sombere, grijze winterweer leidde ertoe dat op veel foto's de kop inderdaad nogal donkerrood overkwam maar op foto's die met beter weer en meer zon waren gemaakt bleek de

kopkleur meer oranjerood zoals vaak beschreven en afgebeeld in de literatuur. Verder liet de vogel niet altijd de diagnostische Smient-achtige kopvorm zien (steil voorhoofd, afgerond achterhoofd) en ook de bult op het voorhoofd toonde hij maar weinig. Bij Amerikaanse Tafeleend (en veel andere *Aythya*-soorten) is de kopvorm echter afhankelijk van gemoedstoestand, houding en gedrag. Het voorhoofd wordt bijvoorbeeld tijdens het foerageren wat platter gehouden en het steile voorhoofd lijkt vooral te worden getoond bij alertheid.

In Brittannië was na drie aanvaarde gevallen en twee claims van Amerikaanse Tafeleend twijfel ontstaan over de determinatie en bleken diverse kenmerken lastig op waarde te schatten. Enkele leden van de Britse zeldzaamhedencommissie begonnen daarop een uitgebreid onderzoek ter voorbereiding van een revisie. Dit resulteerde uiteindelijk in een lijst van kenmerken waar een waarneming van een Amerikaanse Tafeleend in Brittannië aan diende te voldoen voor aanvaarding (cf Garner & Rowlands 2015). Deze lijst is niet allesbepalend maar omvat een opsomming van essentiële en ondersteunende kenmerken. Voor een (adult) mannetje gaat het om de volgende verschillen met Tafeleend: ***1*** groter dan Tafeleend; ***2*** steil voorhoofd met opvallende 'bult' net voor de kruin en afgerond achterhoofd; ***3*** iriskleur geel of soms oranjegeel; ***4*** snavel licht blauwgrijs met brede zwarte punt en witachtige subterminale band en neusgat donker en langgerekt van vorm; ***5*** bovendelen en flank donkerder grijs dan bij Tafeleend, met opvallend donkerdere tertials; ***6*** vogel hoger op het water zittend en vaak met de staart opgericht; ***7*** 'loral bulge' nauwelijks aanwezig of vrijwel verticaal (bij Tafeleend opvallender en meer afgerond van vorm). Kenmerk ***1***-***5*** zijn essentieel voor de determinatie, kenmerk ***6*** en ***7*** zijn ondersteunend. Bij kenmerk ***1*** moet worden opgemerkt dat het groottekenmerk dus alleen goed is te gebruiken als de vogel in het gezelschap is van Tafeleenden en bij kenmerk ***4*** dat de neusgatkenmerken ondersteunend zijn.

Mede dankzij de goede documentatie konden de belangrijkste van deze kenmerken goed worden beoordeeld bij de vogel van Zuidhorn. Het steile voorhoofd met aanzet tot een bult op de voorkruin werd diverse keren waargenomen en fotografisch vastgelegd (cf plaat 449). De licht geeloranje iris en de snaveltekening waren perfect voor Amerikaanse Tafeleend en ook de grijze bovendelen en flanken waren beduidend donkerder dan bij Tafeleend. Het kenmerk van de donkere tertials leek echter niet bruikbaar; een Tafeleend kan ook behoorlijk donkere tertials hebben en een deel van de tertials van de vogel van Zuidhorn was gesleten en donkerbruin. Mogelijk waren deze tertials nog restanten van het eclipskleed waarbij deze veren meestal als laatste worden vervangen (cf Reeber 2015). Het groottekenmerk was niet goed bruikbaar omdat de vogel nooit samen met een Tafeleend werd gezien. Wel oogde de vogel vrij fors en groot voor een Tafeleend en was hij maar net iets kleiner dan de Wilde Eenden waarmee hij vaak optrok. Van de ondersteunende kenmerken was bij de vogel van Zuidhorn vooral de vrijwel verticale 'loral bulge' goed te zien. Bij Tafeleend is deze ronder of meer convex van vorm (van Duivendijk 2011). Het neusgat was lang en donker, wat goed paste op Amerikaanse en hielp bij het uitsluiten van mogelijke hybriden. De vorm van de snavel was vrij recht en niet zoals bij Tafeleend omhoog doorlopend naar het voorhoofd. Een kenmerk dat niet door Garner & Rowlands (2015) werd genoemd maar wel in diverse andere literatuur (eg, Madge & Barrow 1991) betreft het doorlopen van het zwart van de borst tot voorbij de vleugelboeg. Bij Tafeleend houdt dit op bij de vleugelboeg wat de determinatie als Amerikaanse verder ondersteunde.

Hybriden

Verschillende *Aythya*-hybriden kunnen sterk lijken op een mannetje Amerikaanse Tafeleend, zoals Amerikaanse x Grote Tafeleend, Grote Tafeleend x Tafeleend, Kuifeend x Tafeleend en Witoogeend x Tafeleend. De eerste twee hybriden spelen vooral in de VS een rol in het onderscheid met de daar zeldzame Tafeleend. De andere zijn in de meeste gevallen uit te sluiten op basis van kopvorm, snaveltekening en kleur van bovendelen en flank. Op basis van verenkleed en snaveltekening is er echter geen aanleiding om te denken aan een hybride. In Europa kunnen vooral hybriden Witoogeend x Tafeleend tot verwarring aanleiding geven en met name die van het zogenaamde 'Roodkopeend-type'. Zulke vogels hebben meestal een wigvormig kop- en snavelprofiel en de bovendelen zijn duidelijk donkerder grijs dan bij Amerikaanse. De snavel heeft een donkere basis met een onregelmatigere of meer U-vormige lichte subterminale band en met een meer afgeronde zwarte punt. De iris is oranje tot rood (cf Ebels 1992, Gillham & Gillham 1996, Randler 2001, 2008, Vinicombe et al 2014, Reeber 2015, Svensson et al 2017).

Herkomst

De meeste discussie met betrekking tot deze vogel ging niet over de determinatie maar over de her-

TABEL 1 Gevallen van Amerikaanse Tafeleend *Aythya americana* in de WP (* nog niet aanvaard) / records of Redhead *Aythya americana* in the WP (* not yet accepted) (Dennis 1998, Haas 2012, 2017, Kolbeinsson 2005, Hudson & Rarities Committee 2015, Haas et al 2017, Ławicki & van den Berg 2017ab, Mitchell 2017; www.birdguides.com).

Azoren (1)
* 1 september 2017 tot 26 april 2018, Paul da Praia, Terceira, adult mannetje (Dutch Birding 39: 338, plaat 466, 2017, 394: plaat 550, 2017, 40: 115, plaat 143, 2018)

Brittannië (1)
8-27 maart 1996, Bleasby, Nottinghamshire, en 4-24 februari 1997, Rutland Water, Leicestershire, Engeland, mannetje

Ierland (1)
12-15 juli 2003, Lough Errul, Cape Clear Island, Cork, mannetje (Dutch Birding 25: 337, plaat 368, 2003)

IJsland (2)
15 juni tot 10 juli 1998, Rif, Snæfellsnessýsla, mannetje
11-12 juli 1998, Fuglavík á Miðnesi, Gullbringusýsla, adult mannetje

Nederland (1)
19 januari tot 13 maart 2016, Aduard, Noordhorn en Zuidhorn, Groningen, adult mannetje

komst. Aanleiding daarvoor vormden enige beschadigingen aan het verenkleed. Het bleek dat de punten van de buitenste vier handpennen kort voor het uiteinde op de schacht waren gebroken maar de baarden waren nog intact. Deze beschadiging kon niet worden toegeschreven aan kortwieken want daarbij moeten meerdere handpennen op een andere wijze geknipt worden. Bovendien zouden bij knippen ook de baarden zijn afgeknipt op dezelfde hoogte als de schachten; daarbij ontstaan rechte afsnijdingen en dus niet de V-vormen die de vogel van Zuidhorn liet zien. Hoewel niet valt uit te sluiten dat een dergelijke beschadiging in gevangenschap zou kunnen ontstaan is het minstens zo aannemelijk dat dit in het wild gebeurt. Een zoektocht op internet leerde al snel dat soortgelijke beschadigingen inderdaad vaker voorkomen bij wilde Amerikaanse Tafeleenden en bij veel andere eendensoorten in het wild.

Verspreiding en voorkomen

Amerikaanse Tafeleend broedt in het noordwesten van Noord-Amerika, voornamelijk in het grensgebied van de VS en Canada, met kleinere populaties in Alaska, VS, en rondom de Grote Meren. In de winter is de soort door de gehele VS te vinden maar het merendeel overwintert in de zuidelijke helft van het land en dan met name in baaien en lagunes langs de gehele kust van de Golf van Mexico tot aan Midden-Mexico en Cuba. De soort staat bekend als langeafstandstrekker (Sibley 2014, Reeber 2015). De soort is algemeen in Noord-Amerika, met een geschatte broedpopulatie van 1.2 miljoen paar, en vertoont een positieve trend (Reeber 2015).

In het West-Palearctische gebied is Amerikaanse Tafeleend – ondanks de grote populatie in Noord-Amerika – een extreem zeldzame dwaalgast met tot nu toe slechts vijf gevallen (tabel 1). Een recente vogel van de Azoren maakt goede kans het zesde geval te worden. Een Franse waarneming van 23 februari tot 4 maart 2017 te Plobsheim, Bas-Rhin (Dutch Birding 39: 126, plaat 190, 2017) is afgewezen en het vermoeden bestaat dat het dezelfde vogel met een zwarte pootring betreft als die van 2-4 april 2017 bij Wagbachniederung, Baden-Württemberg, Duitsland, c 100 km stroomafwaarts langs de Rijn vanaf Plobsheim (Peter de Vries in litt). Een eerdere waarneming in Duitsland, een adult mannetje bij Münster, Nordrhein-Westfalen, van 20 april tot 7 juni 2000, werd niet aanvaard omdat de plek, tijd en het langdurige verblijf eerder zouden duiden op een vogel afkomstig uit gevangenschap dan op een wilde vogel (Deutsche Seltenheitenkommission 2006). In Brittannië werden tussen 1996 en 2007 in totaal vijf exemplaren waargenomen of geclaimd. De eerste drie werden in eerste instantie aanvaard en de andere twee werden meegenomen tijdens de herbeoordeling door de Britse commissie. Na de in 2011 afgeronde herziening bleef alleen het eerste geval over (tabel 1). De tweede waarneming, een druk bezocht en aanvankelijk onverdacht mannetje in East Glamorgan, Wales, van november 2001 tot december 2004, bleek naderhand toch kenmerken te vertonen die beter passen op een hybride met Tafeleend (onder meer te platte kopvorm, lichtgrijze bovendelen en roodoranje iris). De andere drie, een vrouwtje van september 2003 tot maart 2006 op Barra en Tiree, Outer Hebrides, Schotland, een mannetje op Lewis, Outer Hebrides, op 14 januari 2006, en een juveniele vogel in East Glamorgan van 1 tot 3 augustus 2007, werden uiteindelijk niet aanvaard. Bij deze vogels schoot met name de documentatie tekort waardoor een hybride niet met zekerheid uit te sluiten was (Garner & Rowlands 2015). Een vogel in Zweden in oktober 1964 stond geruime tijd als

eerste geval voor Europa genoteerd (Bauer et al 1980) maar werd na herziening afgewezen (cf Ebels 1992).

De CDNA had uiteindelijk drie lange ronden van overleg nodig om deze waarneming te aanvaarden als nieuwe soort voor Nederland. De soort is een potentiële dwaalgast in West-Europa en zowel het gedrag van de vogel als de staat van het verenkleed spraken een wilde herkomst niet tegen (Haas et al 2017, Nieuwstraten & CDNA 2018).

Voorkomen in gevangenschap

Een zoektocht op het internet leert dat Amerikaanse Tafeleend weinig voorkomt in watervogelcollecties in Nederland en bovendien bleek het uiterst lastig deze soort (ook wel Roodkopeend genaamd) te kopen. Ook Reeber (2015) geeft aan dat Amerikaanse in Europa behoorlijk schaars is in gevangenschap en daarnaast relatief duur in aanschaf in vergelijking met bijvoorbeeld Tafeleend. De soort is echter wel in dusdanige aantallen in gevangenschap te vinden dat er bij een waarneming serieus rekening moet worden gehouden met een 'escape'. Nabij Zuidhorn bevindt zich een watervogelcollectie die door Martin Olthoff (pers meded) is bezocht; hij kreeg te horen dat zich hier geen Amerikaanse Tafeleenden bevonden of werden vermist. Hetzelfde gold voor andere collecties in de omgeving. Bovendien geldt voor deze soort in gevangenschap een ringplicht. Wel zijn er in de database van www.waarneming.nl twee waarnemingen van ontsnapte exemplaren te vinden: een vrouwtje met kleurring op Schiermonnikoog, Friesland, op 22 maart 2008 en een mannetje en een vrouwtje in Giethoorn, Overijssel, op 29 maart 2013 (https://waarneming.nl/observation/3913236, https://waarneming.nl/observation/74609692). De vogels van Giethoorn werden gezien door GvN (!) maar dat ontdekte hij pas bij het checken van zijn fotoarchief na het zien van de vogel van Zuidhorn.

Dankzegging

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Summary

Redhead near Zuidhorn in January-March 2016 From 19 January until 13 March 2016, an adult male Redhead *Aythya americana* was observed on an almost 6 km stretch of a canal near Zuidhorn, Groningen, the Netherlands. The bird was very mobile, as it was only seen on 13 days during its long stay. Despite searches in suitable habitat in the surrounding areas, it remained unknown where it stayed on other days. It was unringed but detailed photographs revealed some minor damages to its plumage: one or two tail-feathers were missing and the tips of the four outermost primaries on the right wing were broken. These damages, as well as several plumage features and the head shape, led to quite some discussion about a potential captive and/or hybrid origin. With the help of many images on the internet, it was shown that wild-origin Redheads and many other species of wildfowl can show similar feather damages. Some considered the reddish colour of the head and upperneck too dark red for Redhead but this appeared to be due to poor light conditions and was considered within the variation of the species. Head shape is an important feature for the identification of Redhead but, as in many *Aythya* species, head shape varies with posture and behaviour and requires prolonged observation and studying many photographs and/or video images. In this case, the steep forehead strongly pointed towards Redhead. Other characters, such as rather large size, yellow iris, coloration of upperparts, wing-bar, bill shape and coloration and the extent of the dark breast, also fitted Redhead, and there were no plumage or structural features indicating a hybrid. After prolonged discussions the Dutch rarities committee (CDNA) accepted this bird as the first for the Netherlands, and fifth for the Western Palearctic. Previous records were in Britain (only one of five records remained accepted after review), Iceland (two) and Ireland (one) (table 1). A recent report from the Azores has not (yet) been formally accepted.

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Variation in tail-tip coloration of Japanese Waxwings

Japanese Waxwing *Bombycilla japonica* is a breeding bird of the Russian Far East, west of Sea of Okhotsk, and north-eastern China. It winters in Korea, eastern China and Japan, and occasionally it turns up further to the south and south-west. In autumn and spring, it migrates rather late, in November-December and May (Brazil 2009). On migration and in winter, it is often in mixed species flocks with Bohemian Waxwings *B garrulus*, which is much more numerous, also in Japan. So far, the westernmost record concerns a first-winter male trapped at Almaty, Kazakhstan, on 3 January 2013, from a Bohemian flock with several Japanese (Ławicki 2013, Wassink 2015). Bohemian are known to migrate over huge distances, with an example of a bird ringed in central Europe being recovered at 5700 km distance near Cita, Jablonowyi, ie, c 400 km beyond lake Baikal in Transbaikalia (Dauria). So, a wild provenance of Japanese is considered a possibility only for birds travelling in Bohemian flocks (cf Ławicki 2013). Up to now, however, reports in Europe have been considered to be escapes from captivity rather than genuinely wild birds.

In the Netherlands, an adult male Japanese Waxwing stayed in a flock of up to 18 Bohemian Waxwings at Wageningen, Gelderland, from 3 March to 1 April 2005 (van Dongen et al 2005; www.waarneming.nl). Previous reports in the Netherlands (cf Ebels 2004) concerned birds not accompanied by Bohemians, or in a season not supportive of a wild provenance (ie, June-October). The Wageningen bird had a pale tail-tip, ie, pinkish instead of red, and this was regarded as a colour aberrancy caused by food-related problems in captivity. Therefore, the Dutch rarities committee (CDNA) did not accept this bird for the Dutch list, stating 'pink tail-band (normally red) considered strong indication of captive origin' (van der Vliet et al 2007; cf plate 453).

Illustrations of Japanese Waxwings with a red tail-tip can be found in many regional field guides without any mention of variation in tail-tip colour (eg, Takano et al 1985, Nakamura 1986, Kanouchi et al 1998, MacKinnon & Phillipps 2000, Iozawa et al 2004, del Hoyo et al 2005, Lee et al 2005, Shimba 2007, Yang et al 2014). However, a photograph depicting 24 individuals in Severinghaus et al (2010) shows at least two with a pale tail-tip. Intrigued by this photograph and more examples of pale pinkish or flesh-coloured tail-tips on the internet, I did a museum study on the variation in the tail-tip colour of non-captive wild birds.

With the help of others (see acknowledgements), I examined 129 museum specimens of Japanese Waxwings collected in their natural habitat. By comparing feather colours from various body parts, we established that none of these specimens was bleached, and that they all showed their original colours. The 129 specimens were aged and sexed as 59 adults (27 males and 32 females) and 70 immatures (35 males and 35 females) (cf van Oijen & Roselaar 2007). For 108 specimens, we used Faber-Castell (2019) as a colour language reference. When photographing, we used the gray

453 Japanese Waxwing / Japanse Pestvogel *Bombycilla japonica*, adult male, with pale pinkish tail-tip, Wageningen, Gelderland, Netherlands, 12 March 2005 *(Edwin Winkel)*. This bird scores 132 (light flesh) on Faber-Castell (2019) colour chart.

454 Japanese Waxwing / Japanse Pestvogel *Bombycilla japonica*, first-winter female (collected Askold, Vladivostok, Siberia, Russia, 26 October 1879, NMW 43423), Naturhistorisches Museum Wien, Vienna, Austria, 28 February 2017 *(Alex Bos/© NMW)*. Note pale flesh-coloured tail-tip. **455** Japanese Waxwings / Japanse Pestvogels *Bombycilla japonica*, Muséum National d'Histoire Naturelle, Paris, France, 23 May 2019 *(Justin J F J Jansen/© Muséum National d'Histoire Naturelle)*. From left to right: first-winter male, Japan (MNHN-ZO-MO-1945-93; rose carmine); first-winter male, Japan, 1895 (MNHN-ZO-MO-2000-1853; pale geranium lake); first-winter female, Japan (MNHN-ZO-MO-1945-95; could not be scored due to reduced amount of red to examine); adult male, Japan (MNHN-ZO-MO-1945-94; permanent carmine). Note variation in coloration of tail-tip.

456 Japanese Waxwings / Japanse Pestvogels *Bombycilla japonica*, Natural History Museum, Tring, England, 20 March 2018 *(Alex Bos/© Trustees of the Natural History Museum, London)*. From left to right: first-winter female, Yokohama, Japan, 13 March 1882 (BMNH 1888.9.1.5); first-winter female, Japan (BMNH 1880.2.27.26); first-winter female, Nagasaki, Japan (BMNH 1888.7.12.370); first-winter female, Nagasaki, Japan, 8 March 1877 (BMNH 1955.N.14.10); adult female, Yokohama, Japan (BMNH 1898.10.20.322). Note variation from red to pale pinkish in coloration of tail-tip. **457** Japanese Waxwings / Japanse Pestvogels *Bombycilla japonica*, Natural History Museum, Tring, England, 20 March 2018 *(Alex Bos/© Trustees of the Natural History Museum, London)*. From left to right: adult male, Yokohama, Japan (BMNH 1898.10.20.321); adult female, Yokohama, Japan (BMNH 1898.10.20.324); adult female, Yokohama, Japan (BMNH 1898.10.20.325); first-winter male, Hiogo prefecture, Japan (BMNH 1907.12.28.90); first-winter male, Yokohama, Japan (BMNH 1898.10.20.323); adult female, Yokohama, Japan (BMNH 1898.10.20.326). Note variation from red to pale pinkish in coloration of tail-tip.

scale colour reference of Tiffen (2007).

For the variation in tail-tip colour we could classify the specimens in 11 colour numbers (figure 1). These 11 numbers ranged from 'scarlet red' to 'light flesh'. Most specimens' tail-tips fitted 'rose carmine' (colour number 124; 29 individuals) and 'pale geranium lake' (colour number 121; 27 individuals). Also, 11 specimens, from all age classes and from various sites (Japan and some in eastern Russia), had a flesh-coloured tail-tip (colour numbers 130-132). This meant that 8.7% of 126 specimens had a pale tail-tip. Therefore, it can be concluded that pale, flesh-coloured pinkish tail-tips occur naturally in Japanese Waxwing, and that this feature cannot be used to indicate a captive origin.

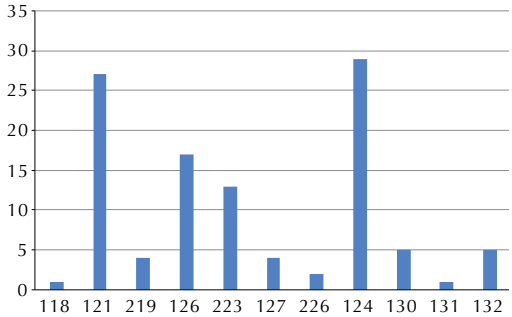

FIGURE 1 Classification of tail-tip coloration of 108 specimens of Japanese Waxwing *Bombycilla japonica*. From left to right darkest red to palest pinkish: 118 scarlet red, 121 pale geranium lake, 219 deep scarlet red, 126 permanent carmine, 223 deep red, 127 pink carmine, 226 alizarin crimson, 124 rose carmine, 130 dark flesh, 131 medium flesh, 132 light flesh. Coloration names and numbers from Faber-Castell (2019) colour chart.

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Trends in systematics

Przevalski's Finch: systematic mystery in pink

Przevalski's Finch *Urocynchramus pylzowi* is one of only a few species on the planet that forms a family by itself. Currently, a total of c 36 monotypic bird families, including 20 families of passerines, are recognized but these numbers are in an almost perpetual state of (systematic) flux… (cf Ebels 2015, Winkler et al 2015). Przevalski's Finch is endemic to the high mountains of central-western China. Its taxonomic affinities have long been unclear, which is reflected in a series of other names used in the past, such as Pink-tailed Bunting, Pink-tailed Finch, Pink-tailed Rosefinch, Przevalski's Pinktail, Przevalski's Rosefinch, Pylstov's Bunting and Rose Bunting. It was named after Nikolai Przevalski (alternative: Przewalski or Przhevalskiy), the famous Russian explorer who described it in 1876 (see Potapov & Potapov (2006) for the life history of Przevalski, and a list of birds and mammals described by him or named after him).

Taxonomy

In granivorous songbirds and parrots, the structure of the horny palate (the part of the bill on the inner side of the rhampotheca which covers the upper mandible) is species-typical and therefore of considerable taxonomic importance (Campbell & Lack 2011). Because of the structure of the horny palate, Przevalski's Finch has often been classified as a bunting Emberizidae (eg, Sibley & Monroe 1990, MacKinnon & Phillipps 2000). However, the species's behaviour, habitat and the presence of pink colours in the body plumage recall the rosefinches (Carpodacini, genera *Erythrina, Haematospiza* and *Carpodacus*) and many birders who have observed it thought it was most likely a rosefinch (cf Roberson 2019). Roberson (2019) also thought the song recalled rosefinches but Przevalski (1876) suggests that the song is more bunting-like. Dickinson (2003) lists the species among the rosefinches (as Pink-tailed Rosefinch), next to Long-tailed Rosefinch *Carpodacus* [formerly *Uragus*] *sibiricus*, the species it resembles most in size, shape and plumage.

458 Przevalski's Finch / Przewalski's Roodmus *Urocynchramus pylzowi*, male, Heimaihe, Qinghai, China, 28 June 2013 *(Menxiu Tong/China Wild Tour)*

459 Przevalski's Finch / Przewalski's Roodmus *Urocynchramus pylzowi*, male, between Heimaihe and Chaka, Qinghai, China, 27 June 2009 *(Max Berlijn)* **460** Przevalski's Finch / Przewalski's Roodmus *Urocynchramus pylzowi*, Heimaihe, Qinghai, China, 28 June 2013 *(Menxiu Tong/China Wild Tour)*. Male in typical song flight. **461** Przevalski's Finch / Przewalski's Roodmus *Urocynchramus pylzowi*, male, Heimaihe, Qinghai, China, 2 July 2017 *(Summer Wong)* **462** Przevalski's Finch / Przewalski's Roodmus *Urocynchramus pylzowi*, juvenile, Heimaihe, Qinghai, China, 23 August 2019 *(Menxiu Tong/China Wild Tour)*

Based on mitochondrial (cytochrome b) DNA sequences, Groth (2000) showed that the species is neither a bunting nor a finch Fringillidae (to which the rosefinches belong) but something different: its lineage goes back deep within the superfamily Passeroidea (including, eg, Emberizidae, Fringillidae, Motacillidae and Prunellidae) and it appears to have no extant close relatives. Groth (2000) concluded: 'Phylogenetic analysis of mitochondrial sequences suggests that *Urocynchramus* is no more closely related to any single family than it is to several others. In other words, the sister group of *Urocynchramus* likely is a clade consisting of two or more oscine families. The best summary of the present genetic data is that *Urocynchramus* is a relict member of a lineage that is as old as, or older than, other families of finches. I agree with Domaniewski (1918) and Wolters (1979) that *Urocynchramus* belongs in its own family, the Urocynchramidae'.

Gebauer et al (2006) described the until then poorly known vocalizations and used these to clarify the systematic relationships, with the following conclusion: 'Although one could argue for a relationship to *Uragus sibiricus* (Pallas), based on nearly identical auditory impression and sonagram structures of their songs, detailed measurements show significant differences in time and frequency parameters. Moreover a mtDNA analysis shows no close phylogenetic relationship to either of

three major emberizid clades. These results support the hypothesis that *Urocynchramus* belongs in its own family, the Urocynchramidae.'

Jønsson & Fjeldså (2006) reviewed 97 recent studies of passerine relationships based on DNA evidence, assessed the strength of the evidence and constructed a cladogram of relationships based on the evidence to date. Przevalski's Finch was in its own clade in the supertree as part of a basal polytomy within Passeroidea. This means that the evidence suggests that it arose in a different lineage from any of the other families within Passeroidea – and thus that it represents the 'oldest evolutionary finch'. However, they also noted that this taxonomic position had not been thoroughly researched or well sampled, and did not yet have high Bayesian or bootstrap support, indicating a need for further research.

Since then, three studies based on mitochondrial as well as nuclear DNA sequences have all supported the isolated lineage within Passeroidea, justifying the single-family classification of Przevalski's Finch (Yang et al 2006, Liang et al 2008, Päckert at al 2016). Päckert et al (2016) performed the only multilocus study and indicated that the species may be more closely related to the weavers than to finches. This publication provided a time-calibrated multilocus phylogeny for Passeroidea including Przevalski's, based on three mitochondrial markers and three nuclear introns. The results: '…placed *U. pylzowi* in a clade together with Estrildidae, Viduidae and Ploceidae. A sister group relationship of *U. pylzowi* and weavers (Ploceidae) was concordant among three multilocus reconstructions but received only poor support' (Päckert et al 2016). Furthermore, the authors stated that: 'The divergence time estimates inferred from a fossil/biogeographical molecular dating approach suggested a late Oligocene split of *U. pylzowi* from its closest relatives at c 25 million years ago, making it the oldest known Tibetan endemic passerine. In addition to the molecular data, behavioural peculiarities and egg coloration further strengthen an isolated placement of Przevalski's.'

In between, a short paper by Dixon et al (2013) published novel information on the species's breeding behaviour, nest site and structure, egg coloration, clutch size and laying dates, concluding: 'To our knowledge the eggs of Pink-tailed Bunting have not previously been described and differ markedly from those of the Fringillidae, which are white or light blue and unmarked or spotted. The glossy, heavily speckled, olive eggs are very distinctive and in colouration resemble those of Common Nightingale *Luscinia megarhynchos* and Bluethroat *L. svecica,* supporting the contention that Pink-tailed Bunting is not a member of the Fringillidae'.

Morphology and ecology

Przevalski's Finch is a rather small, slender-billed and slender-tailed passerine. The tail is long and – quite unlike typical finches – graduated, with the outer tail-feathers being much shorter than the central ones. Males have bright pink on the head, throat, breast and belly and in most of the tail (plate 458, 459, 461). Females and immatures are pale brown with strong streaking on head, underparts and upperparts, and lack pink in the plumage (plate 462-463). Groth (2000) outlined the morphological anomalies of the species. Most important is the fact that it has 10 'long' primaries; the outermost (p1) is half the length of the ninth (p2). In contrast, all members of Fringillidae and Emberizidae have only nine long primaries (the 10th being vestigial). Having nine long primaries is the evolutionarily derived condition, from which no unambiguous character reversals to the ancestral state (10 long primaries) have occurred (cf Groth 1998). This alone suggests that the species is something quite different, and that it may have retained the ancestral state of primary lengths. Unlike Emberizidae or Fringilidae, the interorbital septum (skull located between the eyes, anterior to the braincase) is ossified (Zusi 1978). A final oddity is its unique song flight, which differs from that by rosefinches and buntings. Males rise to c 5 m and then glide down in a pipit *Anthus*-like fashion with the tail raised and slightly spread (Byers et al 1995; www.xeno-canto.org/species/Urocynchramus-pylzowi; plate 460).

Distribution and conservation status

In China, Przevalski's Finch breeds in eastern Qinghai and south-western Gansu south to eastern Xizang and western Sichuan (Clement et al 1993, MacKinnon & Phillipps 2000). It is a resident of alpine scrub at high elevations. Its altitudinal range is 3050-5000 m, where it occurs 'mainly in pairs or singly, but outside the breeding season small flocks of five to 10 occur' (Clement et al 1993). The biology and breeding ecology are poorly known; Dixon et al (2013) were the first to publish information about the eggs. Clement et al (1993) refer to it as a 'shy and little-known species from central China'. Although a species seldom seen by birders, it is qualified as 'Least Concern' by the IUCN (BirdLife International 2018). It has a large range and hence does not approach the

463 Przevalski's Finch / Przewalski's Roodmus *Urocynchramus pylzowi*, juvenile, Heimaihe, Qinghai, China, 22 July 2013 *(Tang Jun/China Bird Tour)*

thresholds for 'Vulnerable' under the range size criterion. The population trend appears to be stable; the population size has not been quantified but it is also not believed to approach the threshold of being classified otherwise than 'Least Concern'.

Conclusion

Groth (2000) proposed that Przevalski's Finch should be regarded as the only member of the family Urocynchramidae. This classification had originally been suggested almost a century ago by von Domaniewski (1918) and again by Wolters (1979). Further support for this position has since come from several molecular studies and this change has now been widely adopted, eg, in Clements (2007), Dickinson & Christidis (2014) and Gill & Donsker (2019).

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WP reports

This review lists rare and interesting Western Palearctic birds reported mainly from **August to late September 2019**. The reports are largely unchecked and their publication here does not imply future acceptance by a rarities committee. Observers are requested to submit their records to each country's rarities committee. Corrections are welcome and will be published.

DUCKS TO GREBES Three different males **Asian White-winged Scoter** *Melanitta deglandi stejnegeri* photographed at Põõsaspea, Läänemaa, on 6, 14 and 20 September concerned the first three records for Estonia. In July-August, four **Black Scoters** *M americana* were present around Denmark. A male was seen at Achmelvich, Highland, Scotland, on 10 September. Coppes et al (2019) showed a strong decline in the **Western Capercaillie** *Tetrao urogallus* population of Schwarzwald, Baden-Württemberg, Germany, from 570 males in 1971 to only 167 in 2018; the distribution area decreased from 607 km^2 in 1989-93 to 344 km^2 in 2014-18 (Vogelwarte 57: 115-122, 2019). A pair of **Great Crested Grebe** *Podiceps cristatus* feeding one chick at Aammiq swamps on 28 April concerned the first breeding for Lebanon. A pair with two young at Jahra pools reserve on 24 May constituted the first breeding for Kuwait (Sandgrouse 41: 181-185, 253, 2019).

DOVES TO SWIFTS The massacre of c 1490 **European Turtle Doves** *Streptopelia turtur* in one day by foreign hunters from Gulf countries in the Marrakech region sparked outrage in Morocco. The French government has given the go-ahead for hunters to shoot up to 18 000 this season; the species is listed as Vulnerable on the IUCN Red List and numbers decreased by 78% across Europe since 1980 (and also by c 80% in France). If accepted, a male **Red Turtle Dove** *S tranquebarica* photographed at Kashaf Roud, Khorasan-e Razavi, on 1 September may be the second for Iran; the first record concerned two birds on 29 January 1975 (two on 8 March 2000 were considered escapes). In August, three adults and one juvenile **Laughing Dove** *S senegalensis* with two pairs building nests were observed at El Pantano, Los Palacios y Villafranca, Sevilla, Spain. One was photographed at Duer, Sarzeau, France, on 4-5 August. A **Common Nighthawk** *Chordeiles minor* flew over a saltmarsh at Appin, Argyll, Scotland, on 11 September. The results of research using geolocators in more than 10 **European Nightjars** *Caprimulgus europaeus* show that birds from Belgium, England and France winter further south than previously thought, in Democratic Republic of Congo, doing a loop migration southward over a wide band between central Morocco and Libya across the Sahara in autumn and following a more westerly route north through western Africa and

464 Black-browed Albatross / Wenkbrauwalbatros *Thalassarche melanophris*, Mykines, Faeroes, 25 June 2019 *(Magnus H Matras)*

Morocco in spring (Ornithos 26: 57-66, 2019). If accepted, a **White-throated Needletail** *Hirundapus caudacutus* flying north at Munkens Klit, Nordjylland, on 28 July will be the second for Denmark. The ninth **Pacific Swift** *Apus pacificus* for Britain was photographed at Hornsea Mere, East Yorkshire, England, on 10 August.

CUCKOOS TO BUSTARDS In July, a group of young **Great Spotted Cuckoos** *Clamator glandarius* being fed by their host parents, Maghreb Magpies *Pica mauritanica*, concerned the first breeding for Algeria. The species is rare as a breeder in north-western Africa; in Morocco, the first breeding was documented near Taroudant, Souss, as recent as April 1990 and the species has also been found breeding at a number of sites north of the Atlas mountains since; in Tunisia, the first breeding was recorded in Sbikha region in 2017 (https://tinyurl.com/yyf5dadc). The first **Common Cuckoo** *Cuculus canorus* for Brazil and South America was photographed at Fernando de Noronha, Pernambuco, on 27 February 2018 (Bull Br Ornithol Club 139: 189-204, 2019). This summer, **Baillon's Crake** *Zapornia pusilla* bred successfully at Neuchâtel lake, Cheseaux-Noréaz, Vaud, Switzerland (the last breeding record was in 1981); also, a young was seen at Kaltrunner Riet, Sankt Gallen, on 1-2 September. In Belgium, two pairs and four chicks at Harchies marshes, Hainaut, in late June constituted the first breeding for Wallonia. In the Netherlands, an adult **Grey-headed Swamphen** *Porphyrio poliocephalus* (without markings indicating a captive origin) was seen irregularly in marshy ditches near Sneekermeer, Friesland, on 16-21 September. In Europe, this species is a breeding bird in southern Russia along Wolga and Terek rivers near northern and western Caspian Sea coasts with up to 1000 pairs (Hagemeijer & Blair 1997); vagrants have been accepted in, eg, Germany (eg, August-September 1983; Charadrius 53: 125-126, 2017), Hungary (15-22 October 1967), Norway (1 September 1923 and 14 October 1923) and Ukraine. An adult male **Little Bustard** *Tetrax tetrax* was present at Methley, West Yorkshire, England, on 6-11 August.

LOONS TO SHEARWATERS The second **Black-throated Loon** *Gavia arctica* for Iceland stayed at Hólkotstjörn and Vestmannsvatn from 2 July to 14 August. In the Canary Islands, a **Black-bellied Storm Petrel** *Fregetta tropica* was photographed at Banco de la Concepción on 3 September (seven out of eight WP records are from this area north-east off Lanzarote). A **Black-browed Albatross** *Thalassarche melanophris* was photographed on Mykines, Faeroes, on 25 June. An unidentified albatross was seen on 12 September from a ferry between Kattegat, Denmark, and Nimis, Sweden, and maybe the same individual flew north past St Abbs Head, Borders, Scotland, on 22 September. The first **Swinhoe's Storm Petrel** *Hydrobates monorhis* for Malta was photographed off Marsascala on 25 August; one seen off Eilat on 6 September was the 13th for Israel. A **Cape Verde Shearwater** *Calonectris edwardsii* trapped in the Cory's

465 Brown Booby / Bruine Gent *Sula leucogaster*, second-summer, St Ives, Cornwall, England, 30 August 2019
(Richard Bonser)

466 Brown Booby / Bruine Gent *Sula leucogaster*, adult, Perros-Guirec, Côtes-d'Armor, France, 30 August 2019
(Armel Deniau/LPO/RNN Sept-Îles)

Shearwater *C borealis* colony on Montaña Clara islet near Lanzarote, Canary Islands, on 9 July was fitted with a gps transmitter; a month later, the bird visited the Moroccan coast and went up north to Cap Rhir and Agadir (the first record for Morocco concerned two birds at Souss estuary on 19 March 2001).

STORKS TO IBISES An adult **Black Stork** *Ciconia nigra* with a nest and four young at Chami Razan, Kurdistan, on 20 May concerned the first breeding for Iraq (Sandgrouse 41: 251-252, 2019). Catsadorakis (2019) studied the settlement and growth of a new breeding colony of **Dalmatian Pelican** *Pelecanus crispus* at the newly created Karla reservoir, Greece, in 2012-17. The first Dalmatian were seen here in 2009 and numbers increased to 950 individuals in June 2015; one pair bred in 2011 and 445 pairs in 2017, forming the species' second largest colony in Europe (Acta Ornithol 54: 125-132, 2019). This year, numbers of booming **Eurasian Bittern** *Botaurus stellaris* in Britain reached a record 198 at 89 sites. A moribund **Least Bittern** *Ixobrychus exilis* picked up at Calheta, São Jorge, on 21 September was the eighth for the Azores and the ninth for the WP (it died the next day). The first **Yellow Bittern** *I sinensis* for Saudi Arabia at King Abdullah University in Thuwal from at least summer 2018 remained until March. In the Canary Islands, the long-staying **Dwarf Bittern** *I sturmii* at Barranco de Rio Cabras, Fuerteventura, from December 2017 remained until at least 23 September. The first **Glossy Ibis** *Plegadis falcinellus* for Mongolia was photographed at Khar Us Nuur on 18 September.

FRIGATEBIRDS TO CORMORANTS An adult male **frigatebird** *Fregata* flying over Jumeira beach, Dubai, on 17 March was the first for the United Arab Emirates (UAE) (Sandgrouse 41: 259, 2019). A subadult **Red-footed Booby** *Sula sula* at Caleta de Vélez harbour, Málaga, Spain, from 16 June was last seen on 20 August. In the Cape Verde Islands, 12 were observed on and around Brava on 14 August. The sixth **Brown Booby** *S leucogaster* for the Azores was reported c 16 km off Ponta dos Rosais, São Jorge, on 13 July. In the next month, an influx took place in western Europe. The first three for Britain were an adult flying past Swalecliffe, Kent, on 19 August; a second-summer first staying at St Ives, Cornwall, on 25-31 August and then at Pendeen Watch on the last date; and a first-summer at Kynance Cove, Lizard, Cornwall, on 2-6 September. In Spain, an adult was seen at Estaca de Bares, A Coruña, on 24 August and again on 4 September. The first for France was an adult photographed at Perros-Guirec, Côtes-d'Armor, on 30 August (the adults in England, France and Spain may relate to the same individual). In Belgium, the long-staying **Pygmy Cormorant** *Microcarbo pygmaeus* at Auderghem, Bruxelles, from January 2018 remained into late September.

WADERS Genetic research shows that the extinct **Canary Islands Oystercatcher** *Haematopus meadewaldoi* (the last shot in 1913 and only eight museum specimens in existence) was most likely a 'recently diverged' black morph or subspecies of **Eurasian Oystercatcher** *H ostralegus*, not a species (https://tinyurl.com/y2y5yea4). An **American Golden Plover** *Pluvialis dominica* photographed at Kole wetlands, Thommana, Kerala, on 19 January 2017 was the first for India. A **Pacific Golden Plover** *P fulva* at Seewinkel, Burgenland, on 12-13 July was the fourth for Austria. In the Azores, four **Semipalmated Plovers** *Charadrius semipalmatus* were seen at Cabo da Praia, Terceira, on 24 August. A **Greater Sand Plover** *Anarhynchus leschenaultii* photographed at Hvalsnes, Suðurnes, on 22-24 July was the second for Iceland; the first was in July 2002. Craig (2019) provided insights on various characters and presented additional evidence that a breeding population of the extinct **Eskimo Curlew** *Numenius borealis* thrived in Alaska, USA, until the first decade of the 20th century, when the population collapsed (https://tinyurl.com/y4rmonu3); the last confirmed record concerns a bird shot on Barbados in September 1963 (in the WP, there were four records in Britain, in 1855, 1878, 1880 and 1887, and one in Ireland in 1870). In the Azores, **Hudsonian Whimbrels** *N hudsonicus* were reported on São Miguel on 18 July and 6 August and on Terceira on 7 and 15 August. Others stayed at Santa Maria, Sal, Cape Verde Islands, during August and on St Kilda, Outer Hebrides, Scotland, on 7-9 September. After protests of birders and conservationists across Europe, the French government ruled against shooting c 6000 **Eurasian Curlews** *N arquata* in France this autumn and winter (the European population has fallen by 42% since 1980). The third **Sharp-tailed Sandpiper** *Calidris acuminata* for Finland stayed at Yyteri, Pori, on 25-30 August. A nest with four eggs of **Dunlin** *C alpina* was found on Marker Wadden, the new artificial islets in IJsselmeer created for birds in 2016; the species disappeared as a regular breeding bird in the Netherlands at the end of the 19th century but there have been a few breeding records since (eg, in 1987). The eighth **Stilt Sandpiper** *C himantopus* for Norway was seen at Kviljoodden, Vest-Agder, on 19 July. An adult on Rathlin Island, Antrim, Northern Ireland, on 11 August flew 850 km to the east to Waverhoek, Utrecht, the Netherlands, where it stayed on 14-20 August (fifth record). The first **Long-toed Stint** *C subminuta* for Norway photographed at Kjerkevågen, Lindesnes, Vest-Agder, on 30 May 2016 has recently been accepted. A **Least Sandpiper** *C minutilla* was reported at La Palme, Aude, France, on 31 August. The first **Buff-breasted Sandpiper** *C subruficollis* for the Cape Verde Islands turned up at Mindelo sewage works, Sao Vicente, on 12 April 2018 (Bull Afr Bird Club 25: 230-251, 2018). A **Western Sandpiper** *C mauri* at Westhoek, Friesland, on 15-20 August was the first for the Netherlands. A **Wilson's Phalarope** *Phalaropus tricolor* photographed at Rusanda on 22 September was the first for Serbia. The first nest with (four) eggs of **Nordmann's Greenshank** *Tringa guttifer* in more than 40 years was discovered on 17 June at Schastye bay at the southwestern corner of the Sea of Okhotsk in the Russian Far East (the species' world population is estimated at less than 2000 individuals). The third **Long-billed Dowitcher**

467 Swinhoe's Storm Petrel / Chinees Stormvogeltje *Hydrobates monorhis*, off Marsascala, Malta, 25 August 2019 *(Kimberly Gauci)* **468** Black-bellied Storm Petrel / Zwartbuikstormvogeltje *Fregetta tropica*, Banco de la Concepción, Canary Islands, 3 September 2019 *(Marcin Sołowiej)* **469-470** Tufted Puffin / Kuifpapegaaiduiker *Fratercula cirrhata*, Bjørnøya, Svalbard, Norway, 13 July 2019 *(Guus Wellesen)*

Limnodromus scolopaceus for Poland stayed at Radziądz, Silesia, on 15-22 September. A male **Great Snipe** *Gallinago media* displaying for the first time in Switzerland was photographed at Bière, Vaud, on 11-12 May. The fourth **Collared Pratincole** *Glareola pratincola* for Ireland was reported at Blanket Nook, Lough Swilly, Donegal, on 22-23 July. In Norway, an adult **Oriental Pratincole** *G maldivarum* at Nærland, Rogaland, on 28-29 August may have been the same individual as the one at Hillesland on 27 May (cf Dutch Birding 41: 266, 2019). Two **Black-winged Pratincoles** *G nordmanni* flying past Honnay, Namur, on 11 September concerned (only) the sixth record for Belgium.

AUKS TO GULLS The first **Tufted Puffin** *Fratercula cirrhata* for Norway on Bjørnøya, Svalbard, was photographed on 13 July (not 14 July; cf Dutch Birding 41: 266, 2019). In Spain, a **South Polar Skua** *Stercorarius maccormicki* was reported off Fisterra, Galicia, on 24 September. A **Laughing Gull** *Larus atricilla* at Allaman, Vaude, on 22 September was the third for Switzerland. The fourth **Audouin's Gull** *Larus audouinii* for the Azores turned up at Porto de Vila do Porto, Santa Maria, on 4 September. An adult **Cape Gull** *L dominicanus vetula* at Quinta de Marim, Olhão, Portugal, on 14 August was probably the same returning individual first seen here in 2009. The sixth **Heuglin's Gull** *L heuglini* for Poland was found on Vistula river near Grudziądz on 18 July.

TERNS Four **Saunders's Terns** *Sternula saundersi* photographed at San Sebastian peninsula near Vilankulos on 2 September 2019 constituted the first record for Mozambique and southern Africa. The second **Caspian Tern** *Hydroprogne caspia* for Iceland was reported at Þorgeirsfjörður í Fjörðum on 2 July. If accepted, a first-winter **American Black Tern** *Chlidonias niger surina-*

471 Greater Sand Plover / Woestijnplevier *Anarhynchus leschenaultii*, Hvalsnes, Suðurnes, Iceland, 22 July 2019 *(Gudmundur Falk)* **472** Wilson's Phalarope / Grote Franjepoot *Phalaropus tricolor*, first-winter, Rusanda, Serbia, 22 September 2019 *(Miroslav Mareš)* **473** Little Bustard / Kleine Trap *Tetrax tetrax*, adult male, Methley, West Yorkshire, England, 6 August 2019 *(Mark Woodhead)* **474** Forster's Tern / Forsters Stern *Sterna forsteri*, adult, Soldier's Point, Louth, Ireland, 3 August 2019 *(Fergal Stanley)*

mensis seen at Tacumshin, Wexford, on 18 September will be the sixth for Ireland. The largest European breeding colony of **Roseate Tern** *Sterna dougallii* on Rockabill, Dublin, Ireland, increased from 1052 pairs in 2009 to 1642 in 2018 (Br Birds 112: 496-516, 2019). This year, a record 122 pairs (the highest number since 1970) nested on Coquet Island, Northumberland, England. On Isle of May, Scotland, a single, paired with a **Common Tern** *S hirundo*, produced a hybrid chick that successfully fledged in early August (Br Birds 112: 492, 2019). In Ireland, the presumably returning adult **Forster's Tern** *S forsteri* was seen at Soldier's Point and at Dundalk Docks, Louth, in August-September. The second **Lesser Crested Tern** *S bengalensis* for Lebanon was photographed at Chekka on 2 March (Sandgrouse 41: 181-185, 2019). In April-June, at Marjal dels Moros, Valencia, Spain, five adult **Elegant Terns** *S elegans* (three females and two males) formed two nesting pairs, laid eggs, and had only a single chick which died within a week after hatching; the species has been breeding at the coastal stretch of l'Albufera de Valencia since 2009, with pure pairs rearing a total of seven juveniles (cf Br Birds 112: 110-117, 2019, Dutch Birding 41: 272, 2019). In France, an adult in Camargue, Bouches-du-Rhône, on 18-25 August and at Le Grau du Roi, Gard, from 29 August to at least 5 September was probably the same individual as the one staying at Noirmoutier, Vendée, from 23 June to 9 August. The third **African Royal Tern** *S albididorsalis* for Portugal photographed at Castro Marim, Algarve, on 5 August was probably the same individual as the one at La Breña y Marismas de Barbate, Cádiz, Spain, on 6 and 14 August.

RAPTORS A **Black-winged Kite** *Elanus caeruleus* over Batumi on 20 September was the third for Georgia. Four

475 Eastern Imperial Eagle / Keizerarend *Aquila heliaca*, fourth calendar-year, Randowbruch, Uckermark, Brandenburg, Germany, 18 September 2019 *(Martin Gottschling)* **476** American Cliff Swallow / Amerikaanse Klifzwaluw *Petrochelidon pyrrhonota*, adult, Garður, Iceland, 27 August 2019 *(Ómar Runólfsson)* **477** Brown Booby / Bruine Gent *Sula leucogaster*, first-summer, Kynance Cove, Lizard, Cornwall, England, 2 September 2019 *(Steve Nuttall)* **478** Pacific Swift / Siberische Gierzwaluw *Apus pacificus*, Hornsea Mere, East Yorkshire, England, 10 August 2019 *(Will Scott)*

Crested Honey Buzzards *Pernis ptilorhynchus* flew past Mount Lebanon in September (there were only two or three previous records in Lebanon). Phipps et al (2019) analysed 188 completed migratory journeys of 94 **Egyptian Vultures** *Neophron percnopterus* across c 70% of the species' global range, and found, eg, that migration distances completed by individuals from the Balkans and Caucasus were up to twice as long and less direct than those in western Europe, and consequently longer in duration, despite faster migration speeds (https://tinyurl.com/y297xjze). In Switzerland, at least two pairs of **Short-toed Snake Eagle** *Circaetus gallicus* bred successfully in Valais this summer. A record 22 **Eastern Imperial Eagle** *Aquila heliaca* pairs bred in Austria this year, and 29 young hatched. A fourth calendar-year at Randowbruch, Uckermark, Brandenburg, from mid-May to at least late September was the first twitchable for Germany since 1991. A **Bonelli's Eagle** *A fasciata* photographedin flight over Merelbeke, Oost-Vlaanderen, Belgium, on 31 March 2018 was identified only recently. The population of **White-tailed Eagle** *Haliaeetus albicilla* in the Netherlands increased from one nesting pair in 2006 to 14 in 2018; the average breeding success in 2006-18 was 1.6 young per successful nest (one at only 185 km from the nearest British coast). Additional pairs are expected to breed in the coming years, with one staying at Kalmthout, Antwerpen, Belgium. Colour rings showed that the first breeding birds originated from northern Germany and most new birds since 2012 were born in the Netherlands. Threats include poisoning (two were taken into care and subsequently released), shooting (one certain and one probable case) and colliding with wind turbines (two) (Limosa 92: 3-15, 2019). The breeding

479 Broad-billed Roller / Breedbekscharrelaar *Eurystomus glaucurus*, Karmia, Israel, 12 September 2019
(Amir Ben Dov)

480 White-throated Bee-eater / Witkeelbijeneter *Merops albicollis*, adult, Eilat, Israel, 18 August 2019
(Yael Shiff)

481 Broad-billed Roller / Breedbekscharrelaar *Eurystomus glaucurus*, Karmia, Israel, 13 September 2019 *(Yoav Perlman)*

482 White-throated Bee-eater / Witkeelbijeneter *Merops albicollis*, adult, Eilat, Israel, 24 August 2019 *(Yoav Perlman)*

population in Iran is now almost extinct, decreasing from 14-16 pairs in 1970-76 to only one active nest at Anzali wetland, Gilan, in 2013-18 (Sandgrouse 41: 176-180, 2019).

OWLS The breeding population of **Little Owl** *Athene vidalii* in Czechia dramatically declined by 94% during the last 20 years and is now estimated at only c 100 pairs (https://tinyurl.com/y6mo8hvp). In Poland, a pair of **Eurasian Scops Owls** *Otus scops* was copulating and visiting a Common Starling's *Sturnus vulgaris* nesting box near Jasło, Podkarpacie, from 25 May to 3 June. The first **Eurasian Pygmy Owl** *Glaucidium passerinum* for Flevoland was found dead on a balcony at Lelystad on 31 August; it was the 10th (or 11th) for the Netherlands and only one on Texel, Noord-Holland, in October 2011 was further west. Recently, photographs came to light of the first **Omani Owl** *Strix butleri* for Iran at Jahrom, Fars, on 5 April 2008. This summer, three **Snowy Owls** *Bubo scandiacus* were present in Scotland: a female remained on St Kilda through September; a male stayed at Ronas Hill, Shetland, on 8-15 August; and another male turned up on Eday, Orkney, on 29 August. Two adult **Arabian Eagle-Owls** *B milesi* with two young were seen at Al Hajar mountains, UAE, on 12 February (Sandgrouse 41: 260-261, 2019; cf Dutch Birding 40: 326-327, 2018).

BEE-EATERS TO FALCONS The first **White-throated Bee-eater** *Merops albicollis* for Israel (and the third for the WP sensu BWP) was an adult at Eilat from 13 August to at least 21 September; in the first weeks, it was in the same area as a female **Grey Hypocolius** *Hypocolius ampelinus*. In Outer Hebrides, Scotland, a **Blue-cheeked Bee-eater** *M persicus* was reported at Stornoway, Lewis, on 25 July. A **Broad-billed Roller** *Eurystomus glaucurus* at Karmia on 12-18 September was the first for Israel and the third for the WP (previous ones were collected in the Cape Verde Islands on 22 November 1897 and 28 April 1924; one found dead just outside WP sensu BWP in Gebel Elba, Egypt, on 30 October 2010 is now evaluated by the Egyptian rarities committee). A **Common Kingfisher** *Alcedo atthis* at Mógilsá, Reykjavík, from 18 August to at least 17 September was the first for Iceland. In August, the largest-ever influx of **Red-footed Falcons** *Falco vespertinus* for Estonia numbered at least 550 individuals, including a flock of 85 at Kõrkküla on 30 August. A large influx was also noted on the Polish Baltic coast, with eg, 332 in Słowiński national park on 28 August.

VIREOS TO SWALLOWS In the Azores, three **Red-eyed Vireos** *Vireo olivaceus* were found on Corvo on 23 September. Touzé (2019) summarized the decline of the breeding population of **Lesser Grey Shrike** *Lanius minor* in France from 40-50 pairs until 2001 to 27-36 in 2002-07 and 17-20 in 2008-14, except for a population rise to 28 pairs in 2014, followed by a subsequent decline to 10 in 2015, eight in 2016, five in 2017, two in 2018 and just one pair in 2019 (https://tinyurl.com/yxlytj2t). One photographed at Vale Santo, Sagres, Algarve, on 20-22 September was only the first for Portugal. A confiding **Spotted Nutcracker** *Nucifraga caryocatactes* photographed at Beerze, Overijssel, the Netherlands, on 18 September may have been the popular long-staying individual last seen on 1 July at Wageningen, Gelderland. The long-staying **Pied Crow** *Corvus albus* that arrived in the Netherlands from Wales and England on 22 May was still present in Friesland during September (cf Dutch Birding 41: 275, 2019). In April, the first breeding of **Goldcrest** *Regulus regulus* for Lebanon was confirmed at Qammouha (Sandgrouse 41: 181-185, 2019). A male ringed at Lotte-Wersen, Steinfurt, Nordrhein-Westfalen, Germany, on 4 October 2016 was retrapped 22 hours later at a distance of 185 km at Asten, Noord-Brabant, the Netherlands, on 5 October (Vogelwarte 56: 283, 2018). A **Bimaculated Lark** *Melanocorypha bimaculata* photographed at Ottelmannshausen, Herbstadt, Bayern, on 8-12 September was the first for Germany. As many as 10 **American Cliff Swallows** *Petrochelidon pyrrhonota* turned up in the north-west of the WP, including the largest flock ever of six at Cabo da Praia, Terceira, on 2 September (one flew at Santa Cruz, Graciosa, Azores, on 28 August). One at Garður, Reykjanes, on 26 August and two on 27 August constituted the second and third records for Iceland; the first concerned two in 2004. The first for Scotland was discovered at Milovaig, Skye, Highland, on 27 August.

LEAF WARBLERS TO CISTICOLAS Raković et al (2019) analyzed the relationships in the 'chiffchaff complex' (ie, **Common** *Phylloscopus collybita*, **Iberian** *P ibericus*, **Canary Islands** *P canariensis* and **Caucasian Mountain Chiffchaff** *P (sindianus) lorenzii*), and the patterns of intraspecific geographic variation across the 'chiffchaff complex' range, and showed that **Siberian Chiffchaff** *P (collybita) tristis* was the most differentiated taxon and may (indeed) represent a separate or incipient species, while the other taxa, though differentiated in their mtDNA, formed wide zones of introgression with neighbouring subspecies. They found that the recently discovered population breeding on Mount Hermon in the Anti-Lebanon mountains was of mixed genetic origin but had some birds with unique lineage that could not be assigned to known taxa (PLoS ONE 14 (1): e0210268, 2019). **Hume's Whitethroats** *Sylvia althaea* at Jebel Dhanna on 13-16 March and at Ain al-Waal on 13 March were the second and third for the UAE. The first **Pallas's Grasshopper Warbler** *Locustella certhiola* for North America was photographed on Gambell, Alaska, USA, on 9 September. The sixth for Belgium was trapped at Knokke, West-Vlaanderen, on 22 September. If accepted, a **Booted Warbler** *Iduna caligata* seen at Mmourisca, Setúbal, on 24 September will be the second for Portugal. In southern England, an **Eastern Olivaceous Warbler** *I pallida* showed well at Farlington, Hampshire, on 13-17 September. The seventh for Norway was found on Karmøy, Rogaland, on 18 September. The second **Melodious Warbler** *Hippolais polyglotta* for Iceland was photographed at Eyrarbakki on 25 September. The fourth **Paddyfield Warbler** *Acrocephalus agricola* for Czechia was trapped near Bartošovice,

483 Grey-headed Swamphen / Grijskoppurperkoet *Porphyrio poliocephalus*, adult, Sneekermeer, Friesland, Netherlands, 21 September 2019 *(Arnoud B van den Berg)*

484 Great Snipe / Poelsnip *Gallinago media*, male, Bière, Vaud, Switzerland, 12 May 2019 *(Lionel Maumary)*

485 Sharp-tailed Sandpiper / Siberische Strandloper *Calidris acuminata*, summer plumage, Yyteri, Pori, Finland, 26 August 2019 *(Juha Sjöholm)* **486** Least Bittern / Amerikaanse Woudaap *Ixobrychus exilis*, Calheta, São Jorge, Azores, 21 September 2019 *(Rui Sequeira)* **487** Tennessee Warbler / Tennesseezanger *Leiothlypis peregrina*, first-winter, Reykjanesviti, Iceland, 9 September 2019 *(Yann Kolbeinsson)*

488 Bimaculated Lark / Bergkalanderleeuwerik *Melanocorypha bimaculata*, Ottelmannshausen, Herbstadt, Bayern, Germany, 8 September 2019 *(Thomas Kuhn)*

489 Paddyfield Warbler / Veldrietzanger *Acrocephalus agricola*, first-year, Kennemerduinen, Noord-Holland, Netherlands, 10 September 2019 *(Arnoud B van den Berg/Vrs van Lennep)*. Ringed bird just after release.

490 Pied Bush Chat / Zwarte Roodborsttapuit *Saxicola caprata*, male, Al Zour sewer plant reeds, Kuwait, 23 August 2019 *(Lijo James Mathew)*

491 House Bunting / Huisgors *Emberiza sahari*, male, Tarifa, Cádiz, Spain, 7 September 2019 *(Yeray Seminario/Birding The Strait)*

northern Moravia, on 26 July (earlier this year, the second and third were trapped on 23 May and 6 July; cf Dutch Birding 41: 275, 2019). A first-year trapped at Bloemendaal, Noord-Holland, on 10 September was the 44th for the Netherlands (nearly all have been ringing records, none twitchable). The 43rd for Belgium was ringed at Zomergem, Oost-Vlaanderen, on 15 September. A **Blyth's Reed Warbler** *A dumetorum* ringed at Mgarr ix-Xini, Gozo, on 1 September was the fifth for Malta. The fourth for Czechia was ringed at Cervenohorske in the Sudety mountains on 10 September. This summer, three successful **Zitting Cisticola** *Cisticola juncidis* pairs at Les Grangettes, Vaud, and Vionnaz, Valais, constituted the fourth to sixth breeding records for Switzerland.

WAXWINGS TO STARLINGS In Iceland, four juvenile **Bohemian Waxwings** *Bombycilla garrulus* were found at Vestmannsvatn on 31 July. Also, a pair raised young at Egilsstaðir, and breeding was suspected at Mývatn; there were only three previous breeding records, all in 2011. In Ornithos 26: 83-94, 2019, an update was given on the distribution of **Algerian Nuthatch** *Sitta ledanti*, which was discovered in 1975 in a rather small mixed forest on Djebel Babor, Kabylia. It is now known from five additional isolated forests further to the east in northern Algeria, ie, Guerrouch, Tamentout, Djimla, Lerabâa and Djebel El Djarda (the latter two sites were discovered in 2018); it appears that the species prefers oak forests rather than conifers. It turns out that during the huge influx of **Rosy Starling** *Pastor roseus* in western Europe in spring 2018, a record 2307 individuals were seen in France between 24 May and 8 August, with a peak movement in the last week of May and the vast majority in the south-east (Ornithos 26: 105-119, 2019; cf Dutch Birding 40: 266, 2018). The first for Tanzania was photographed between Tarangire and Arusha on 9 September.

THRUSHES TO ACCENTORS A **Blue Rock Thrush** *Monticola solitarius* at Morning Point on St Mary's, Scilly, England, on 22 September was the seventh for Britain. A **Pied Bush Chat** *Saxicola caprata* at Al Zour sewer plant reeds on 22-31 August was the third for Kuwait. In Europe, the identification of 10 **Stejneger's Stonechat** *S stejnegeri* has been confirmed by genetic analyses, including four in England (at Portland, Dorset, on 24-26 October 2012 (the same individual stayed in the Netherlands on Texel on 8-23 October); at Landguard, Suffolk, on 6-7 October 2016; at Spurn, Yorkshire, on 22-26 October 2016; and at Salthouse, Norfolk, from 19 October to 8 November 2018), three in Sweden (at Landsort, Sörmland, on 2 October 2008, at Ottenby, Öland, 9-11 October 2015; and at Falsterbo, Skåne, on 20 September 2016), two in Finland (at Orivesi, Pappilanniemi, from 31 October to 26 November 2013 and at Espoo, Matinkylä, on 13 October 2018) and one in Denmark (at Gedser, Sjælland, on 31 October 2017) (Br Birds 112: 517-534, 2019). Two on Vlieland, Friesland, the Netherlands await formal acceptance (on 9 October 2016 and 16-17 October 2017). A female **Northern Wheatear** *Oenanthe oenanthe* photographed near Wangdu Phodrang, Punakha, on 30 March was the first for Bhutan (Indian Birds 15: 96-97, 2019). An adult female **Eastern Black-eared Wheatear** *O melanoleuca* was twitched by many at Fluke Hall, Lancashire, England, on 1-16 September. In Sweden, an **Alpine Accentor** *Prunella collaris* was present at Hoburgsklippan, Gotland, from 25 July to 18 August.

SPARROWS TO BUNTINGS A **Eurasian Tree Sparrow** *Passer montanus* shot at Qa'a valley on 23 November 2018 was the second for Lebanon; the first was seen on 19 March 1955 (Sandgrouse 41: 181-185, 2019). A **Richard's Pipit** *Anthus richardi* sound-recorded near Letonice, Southern Moravia, on 15 September was (only) the second for Czechia. This autumn's first **Pechora Pipit** *A gustavi*, on Vaerøy, Nordland, on 18 September was the 54th for Norway. Two **American Buff-bellied Pipits** *A rubescens rubescens* at Stóra-Sandvík on 30 August were the earliest ever for Iceland. The invasion of **Two-barred Crossbills** *Loxia leucoptera* in northern Scotland from early July through August involved at least 180 in Shetland and c 10 in Orkney and Outer Hebrides. A record 30 were found in Iceland in August (previously there had been three records of single birds). In the Faeroes, a flock of 14 was photographed on Mykines on 1 August. In Norway, a peak of 200 were noted at Sør-Aurdal, Oppland, on 26-28 August. A **Savannah Sparrow** *Passerculus sandwichensis* photographed at Station Nord research base at 81°N in north-eastern Greenland on 25 July was the first for Greenland. In Spain, a male **House Bunting** *Emberiza sahari* was seen at Tarifa, Cádiz, on 7-10 September. The second **Rustic Bunting** *E rustica* for Belarus was trapped and ringed at Sasnovy Bor, Rasony, on 25 September.

AMERICAN WARBLERS A **Tennessee Warbler** *Leiothlypis peregrina* photographed at Reykjanesviti on 8-10 September was the second for Iceland; the first was found dead on 14 October 1956. Trimbath et al (2019) presented the first mensural and molecular evidence to confirm two cases of hybridization between **Cerulean Warbler** *Setophaga cerulea* and **Northern Parula** *S americana* based on atypical songs detected during the 2014-15 breeding season in Summit County, Ohio, USA. Analysis of tissue samples and morphometric and plumage data showed a combination of characteristics of both species; the overall appearance resembled a Cerulean male but with white eye arcs, a weak yellow wash on the breast, and some yellow mantle-feathers suggesting Northern Parula parentage. Both individuals' mitochondrial sequences were identical to Cerulean sequences, indicating that both had a Cerulean mother. Sequences from nuclear genes had a total of 10 heterozygous loci, confirming that they were sired by Northern Parulas (https://tinyurl.com/y3uuto4d). On 24 September, in the Azores, a **Chestnut-sided Warbler** *S pensylvanica* (fifth for the WP), a **Black-and-white Warbler** *Mniotilta varia* and a **Canada Warbler** *Cardellina canadensis* (sixth for the WP), were found on Corvo.

HUNTING IN THE MIDDLE EAST Brochet et al (2019) estimated that at least 1.7-4.6 million wild birds of 413 species may be killed or taken illegally each year in the Arabian Peninsula, Iraq and Iran but data are available only for a part of that area (Sandgrouse 41: 154-175, 2019). Combining this with what is known for other countries in the Middle East (see a Mediterranean focused review by Brochet et al (2016)) results in an estimated 17.5 million birds (8.0-27.1) killed annually across the region. In five out of 17 Middle Eastern countries, on average more than one million birds may be illegally killed every year, with the highest numbers in Egypt, Iran, Lebanon, Saudi Arabia and Syria.

For a number of reports Birdwatch, British Birds, Go-South Bulletin, Sovon-nieuws, www.birdguides.com, www.birdinglatvia.lv, www.clanga.com, www.dutchavifauna.nl, www.hbw.com, www.magornitho.org, www.rarebirdalert.co.uk, www.rarebirdspain.net, www.tarsiger.com and www.waarneming.nl were consulted. We wish to thank Abdulrahman Al-Sirhan, Mohamed Amezian, Chris Batty, Amir Ben Dov, Patrick Bergier, Richard Bonser, Paul Bradbeer, Mika Bruun, José Luis Copete, Magnus Corell, Andrea Corso, Armel Deniau, Debby Doodeman, Philippe Dubois, Nils van Duivendijk, Enno Ebels, Gudmundur Falk, Raymond Galea, Eduardo Garcia del Rey, Kimberly Gauci, Meysam Ghayedi, Martin Gottschling, Ricard Gutiérrez, Radosław Gwóźdź, Josh Jones, Zbigniew Kajzer, Leander Khil, Bence Kókay, Yann Kolbeinsson, Thomas Kuhn, Richard Kvetko, Gabriel Levitzky, André van Loon, Miroslav Mareš, Lijo James Mathew, Magnus Matras, Lionel Maumary, Geir Mobakken, Killian Mullarney, Steve Nuttall, Uku Paal, Yoav Perlman, René Pop, Nikos Probonas, Colin Richardson, Magnus Robb, Ómar Runólfsson, Will Scott, Yeray Seminario, Rui Sequeira, Yael Shiff, Jiri Sirek, Juha Sjöholm, Marcin Sołowiej, Vincent van der Spek, Fergal Stanley, Rasmus Strack, Edd Stubbs, Maciej Szymański, Ehsan Talebi, Arne Torkler, Hugo Touzé, Andre Vieira, Roland van der Vliet, Peter de Vries and Guus Wellesen for their help in compiling this review.

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Recente meldingen

Dit overzicht van recente meldingen van zeldzame en interessante vogels in Nederland beslaat voornamelijk de periode **juli-augustus 2019**. De vermelde gevallen zijn deels niet geverifieerd en het overzicht is niet volledig. Alle vogelaars die de moeite namen om hun waarnemingen door te geven worden hartelijk bedankt. Waarnemers van soorten in Nederland die worden beoordeeld door de Commissie Dwaalgasten Nederlandse Avifauna (CDNA) wordt verzocht hun waarnemingen zo spoedig mogelijk in te dienen via www.dutchavifauna.nl.

EENDEN Naast een serie aantoonbare escapes zaten er in augustus in zeker drie provincies ongeringde, maar vanwege het seizoen natuurlijk evengoed verdachte **Roodhalsganzen** *Branta ruficollis*. Een ongeringde **Ross' Gans** *Anser rossii* met gave vleugels werd van 2 tot 26 augustus in de ruime omgeving van de Lauwersmeer, Friesland/Groningen, gezien. Aanvankelijk drie en later twee jonge **IJseenden** *Clangula hyemalis* bevonden zich nog tot medio augustus op de Markerwadden, Flevoland. Vanaf 2 juli verbleef een vrouwtje nabij Almere, Flevoland, en op 18 juli werd een exemplaar gefotografeerd bij Lienden, Gelderland (eerder dit jaar hier ook al waargenomen). Vanaf 22 augustus kwamen de eerste meldingen van diverse locaties in de Waddenzee en op 31 augustus vloog er één langs telpost Castricum aan Zee, Noord-Holland. Na een maandje afwezigheid werd vanaf 22 juli het mannetje **Koningseider** *Somateria spectabilis* (nu in eclipskleed) weer regelmatig vanaf Vlieland, Friesland, gemeld. Van de **Buffelkopeend** *Bucephala albeola* verbleven de usual suspects tot en met 21 augustus in de Brabantse Biesbosch, Noord-Brabant, en tot en met 17 augustus bij Den Oever, Noord-Holland. Van 4 tot 15 juli werd bovendien een al-dan-niet-geringd vrouwtjes-type gezien bij Beugen, Noord-Brabant. **Witoogeenden** *Aythya nyroca* verbleven op een handvol plekken, waaronder tot eind juli in de Ezumakeeg, Friesland, en tot half augustus bij Kampen, Overijssel (Roy Slaterus in litt). Een bewezen ontsnapte **Blauwvleugeltaling** *Spatula discors* (met ring) zwom medio augustus bij Asenray, Limburg.

KOEKOEKEN TOT IBISSEN Een eerste-kalenderjaar **Kuifkoekoek** *Clamator glandarius* werd op 4 augustus gefotografeerd nabij het Zuidlaardermeer, Groningen. Naar verluid werd een adult mannetje **Klein Waterhoen** *Zapornia parva* op 11 augustus kort gehoord en gezien nabij Woensdrecht, Noord-Brabant. Hier lieten minimaal één adulte en drie juveniele **Kleinst Waterhoenen** *Z pusilla* zich vanaf 4 augustus dikwijls uitstekend aan een groeiende menigte vogelaars zien: een passend sluitstuk van de mooie influx dit jaar. Vooral aan het begin van de periode werden verder er mondjesmaat nog enkele van reeds bekende locaties gemeld. Langsvliegende **Parelduikers** *Gavia arctica* in zomerkleed werden op 16 juli gemeld bij Petten, Noord-Holland, en op 26 augustus bij Den Helder, Noord-Holland. Niet meer dan acht **Noordse Stormvogels** *Fulmarus glacialis* werden vanaf zeetrektelposten geteld. Behoudens een waarneming op het Continentaal Plat werd er ook maar één **Grauwe Pijlstormvogel** *Ardenna grisea* gezien, op

492 Sakervalk / Saker Falcon *Falco cherrug*, juveniel, Wieringen, Noord-Holland, 20 juli 2019
(Arnoud B van den Berg)

493 Alaskastrandloper / Western Sandpiper *Calidris mauri*, Westhoek, Friesland, 15 augustus 2019
(Wim van Zwieten)

18 augustus vanaf Terschelling, Friesland. Ook **Noordse Pijlstormvogels** *Puffinus puffinus* waren dun gezaaid met enkelingen op 8 augustus langs Camperduin, Noord-Holland, en op 10 augustus langs Texel, Noord-Holland. Na de vroege **Vale Pijlstormvogel** *P mauretanicus* van 30 juni volgde er in de normaliter beste periode voor de soort nog maar een karig aantal, op 27 juli op het Continentaal Plat, op 19 augustus langs Terschelling en op 20 augustus langs Camperduin. Over de telposten trok een mooi aantal van 123 **Zwarte Ooievaars** *Ciconia nigra*. Meer dan de helft daarvan (66) werd geteld in de Groote Peel, Noord-Brabant. Hier werd op 2 augustus het dagrecord van 17 van telpost Loozerheide, Limburg (16 september 2017), geëvenaard. In totaal werden 's nachts op geluidsopname-locaties vijf roepende overvliegende (waarschijnlijke) **Woudapen** *Ixobrychus minutus* vastgelegd. De mooie serie waarnemingen van **Ralreigers** *Ardeola ralloides* uit mei en juni kreeg vooral in het begin van deze periode een vervolg. De vogel van de Markerwadden werd nog tot 9 juli gemeld. Een exemplaar op 4 juli bij de Nesciobrug was alweer de vierde voor Amsterdam, Noord-Holland. Van 7 tot 14 juli verbleef een exemplaar op verschillende plekken rondom Almere, Flevoland, en op 16 en 17 juli bij Haaften, Gelderland, waarmee het aantal locaties met waarnemingen dit jaar uitkomt op 11; met weinig overlap in datums is het wel de vraag of dat ook allemaal verschillende waren. **Koereigers** *Bubulcus ibis* werden van c 15 plekken gemeld, met maximaal zeven (in september zelfs acht) in de Brabantse Biesbosch. Trektellers zagen er liefst negen langs hun posten vliegen. Van c 10 locaties werden **Zwarte Ibissen** *Plegadis falcinellus* gemeld, met onder meer maximaal vijf bij het Zuidlaardermeer en drie bij Waverhoek, Utrecht, op 24 augustus.

STELTLOPERS **Steltkluten** *Himantopus himantopus* werden nog uit 29 uurhokken in negen provincies gemeld, met daarbij op diverse locaties waarnemingen van vliegvlugge jongen. Een **Amerikaanse Goudplevier** *Pluvialis dominica* bij Willeskop op 11 en 12 augustus was de eerste voor de provincie Utrecht. Van 29 tot 31 augustus verbleef er vervolgens één in de Emmapolder, Groningen. **Aziatische Goudplevieren** *P fulva* zaten op 13 en 14 juli in de Dollard, Friesland en op 18 juli op Vlieland. Op 5 augustus was er een waarneming van een roepende, overvliegende op Texel. Na het goede voorjaar was ook dit een prima periode voor **Morinelplevieren** *Charadrius morinellus*. Na de eerste op 19 augustus noteerden trektellers 47 langsvliegende vogels, met grote groepen langs Nolledijk, Zeeland, op 24 augustus (negen) en Sittard, Limburg, op 31 augustus (12). Buiten deze telresultaten waren er meldingen van nog eens c 15 locaties, met onder meer zes over Texel op 22 augustus en zes ter plaatse in de Anjumer en Lioenssenserpolder, Friesland, op 24 en 25 augustus. Vanaf 20 juli werden zes **Breedbekstrandlopers** *Calidris falcinellus* doorgegeven, waaronder een adult in zomerkleed van 28 juli tot 1 augustus bij Broekhuizen, Limburg, en twee verschillende bij Westhoek, Friesland, waaronder een adult in winterkleed. Een adulte **Steltstrandloper** *C himantopus* trok van 14 tot 20 augustus veel bekijks rondom de Waverhoek, Utrecht. Opmerkelijk was dat uit kleedanalyse bleek dat deze vogel op 11 augustus al op Rathlin Island, Antrim, Noord-Ierland, was gefotografeerd. IJseend was niet de enige bijzondere broedvogel op de Markerwadden: een paartje **Bonte Strandloper** *C alpina* produceerde vier eieren. De enige gemelde **Bonapartes Strandloper** *C fuscicollis* verbleef op 21 juli kortstondig in de Lauwersmeer, Groningen. Na een voorjaar zonder, doken er twee adulte **Blonde Ruiters** *C subruficollis* op. Een exemplaar nabij Sluis, Zeeland, op 17 augustus was alleen voor de ontdekker weggelegd maar een ander vanaf 31 augustus op een ondergelopen bollenveld bij Anna Paulowna, Noord-Holland, liet zich door meer vogelaars bewonderen. **Gestreepte Strandlopers** *C melanotos* bevonden zich van 28 juli tot 4 augustus in de Ezumakeeg, Friesland, en vanaf 28 augustus waren er afwisselend waarnemingen in Oudesluis en Slootdorp, Noord-Holland. Een adulte **Alaskastrandloper** *C mauri* werd op 15 augustus ontdekt op de hoogwatervluchtplaats bij Westhoek. Deze nieuwe soort voor Nederland, een zinderende epiloog van een memorabele zomer voor zeldzaamheden, liet zich tot 19 augustus met hoog water aan 100en vogelaars zien. Van c 20 locaties werden **Grauwe Franjepoten** *Phalaropus lobatus* gemeld, waaronder drie langs telposten; het zwaartepunt lag langs de kusten van Friesland en Groningen en op de geïnundeerde bollenvelden in de kop van Noord-Holland. Het hoogste aantal vogels bijeen bedroeg drie, op meerdere locaties. **Rosse Franjepoten** *P fulicarius* verbleven tussen 27 juli en 5 augustus op het wad bij Westhoek en op 10 augustus op de hoogwatervluchtplaats van de Balgzandpolder, Noord-Holland. Wederom werd tijdens nachtelijke opnamen het geluid van wat verdraaid veel weg had van een **Terekruiter** *Xenus cinereus* vastgelegd, ditmaal op 2 juli boven Arnhem, Gelderland. Van 18 tot 27 juli verbleef een zichtbaar exemplaar rondom Polder Breebaart, Groningen. **Kleine Geelpootruiters** *Tringa flavipes* werden op 17 juli gezien bij Mariëndal, Noord-Holland, en op 18 juli bij Stiens, Friesland. **Poelruiters** *T stagnatilis* stapten van 8 tot 10 juli rond bij Uitgeest, Noord-Holland; op 30 juli op Texel; van 31 juli tot 2 augustus in De Onlanden, Drenthe; en vanaf 19 augustus bij Borgharen, Limburg. Een overvliegende **Grote Grijze Snip** *Limnodromus scolopaceus* werd op 4 augustus gemeld bij Katwijk aan Zee, Zuid-Holland.

ALKEN TOT STERNS Nadat op 15 april voor het laatst een **Zwarte Zeekoet** *Cepphus grylle* vanaf Terschelling was gemeld, was er vanaf 4 juli (weer) een exemplaar aanwezig. Zeetrektellers registreerden in totaal twee **Kleinste** *Stercorarius longicaudus*, 82 **Kleine** *S parasiticus,* drie **Middelste** *S pomarinus* en 11 **Grote Jagers** *S skua*. De tweede-kalenderjaar **Grote Burgemeester** *Larus hyperboreus* in en rond de haven van Vlissingen, Zeeland, bleef de gehele periode. **Lachsterns** *Gelochelidon nilotica* lieten mooi hun inmiddels bekende (deels nieuwe) doortrekpatroon zien. Vanaf 7 juli arri-

494 Kleinst Waterhoen / Baillon's Crake *Zapornia pusilla*, adult, Woensdrecht, Noord-Brabant, 6 augustus 2019 *(Kris De Rouck)*

495 Kleinst Waterhoen / Baillon's Crake *Zapornia pusilla*, juveniel, Woensdrecht, Noord-Brabant, 25 augustus 2019 *(Kris De Rouck)*

496 Kleine Geelpootruiter / Lesser Yellowlegs *Tringa flavipes*, Wide Mar, Stiens, Friesland, 18 juli 2019 *(Wim van Zwieten)*

497 Gestreepte Strandloper / Pectoral Sandpiper *Calidris melanotos*, adult, Oudesluis, Noord-Holland, 1 september 2019 *(René van Rossum)*

498 Kleine Jager / Parasitic Jaeger *Stercorarius parasiticus*, adult, Camperduin, Noord-Holland, 4 augustus 2019 *(Maurits Martens)*

499 Dougalls Stern / Roseate Tern *Sterna dougallii*, adult, Noordervroon, Westkapelle, Zeeland, 8 juli 2019 *(Corstiaan Beeke)*

500 Steppekiekendief / Pallid Harrier *Circus macrourus*, juveniel, Sint Annen, Groningen, 23 juli 2019
(Wim van Zwieten)

501 Zwarte Zeekoet / Black Guillemot *Cepphus grylle*, eerste-zomer, Terschelling, Friesland, 23 juli 2019
(Arie Ouwerkerk)

veerden de eerste op de zandgaten ten zuiden van Oude Pekela, Groningen. Hier groeide het aantal tot maximaal 27 op 22 juli. Op 17 augustus werd het laatste exemplaar in deze provincie gemeld. Op de andere traditionele pleisterplek in de kop van Noord-Holland verscheen de eerste op 25 juli. Op de slaapplaats op het Balgzand was het maximum 23, op 16 augustus. Overdag werden als altijd kleine groepjes op geïnundeerde bollenvelden of jagend boven poldersloten gemeld. Buiten de geijkte locaties verbleef van 3 tot 5 augustus een gekleurringde bij Spijkenisse, Zuid-Holland, en werden er twee gemeld bij Zoutelande, Zeeland, op 25 augustus. Maar liefst 72 **Reuzensterns** *Hydroprogne caspia* vlogen langs trektelposten, waarvan 17 langs Kamperhoek, Flevoland. Pleisteraars werden vooral in het noordoosten gezien, met 39 bij de Bantpolder, Friesland, op 23 augustus; 50 in de Workumerwaard, Friesland, op 28 augustus; en 28 op het Vossemeer, Overijssel, op 25 augustus. In hun broedgebied rond het Zuidlaardermeer werden maximaal 50 **Witwangsterns** *Chlidonias hybrida* bij elkaar waargenomen. Daarbuiten trok een exemplaar op 18 juli langs telpost Lauwersoog, zaten er van 16 tot 19 augustus maximaal vier bij Harlingen, Friesland, en waren er solitaire op 18 augustus bij Den Oever en langs de Oostvaardersdijk, Flevoland. Vanaf trektelposten werden zes **Witvleugelsterns** *C leucopterus* gemeld. De meeste waarnemingen van pleisteraars waren rond IJsselmeer en Markermeer, Flevoland, en Den Oever. Het hoogste aantal bedroeg drie op De Kreupel, Noord-Holland, op 12 augustus. Bij Westkapelle, Zeeland, was op 8 juli een geringde adulte **Dougalls Stern** *Sterna dougallii* aanwezig. Op dezelfde locatie verbleven van 18 tot 20 juni 2011 twee exemplaren.

ROOFVOGELS EN UILEN Vanaf telposten werden de volgende aantallen roofvogels geteld: 109 **Visarenden** *Pandion haliaetus*, zeven **Blauwe Kiekendieven** *Circus cyaneus*, 31 **Grauwe Kiekendieven** *C pygargus*, 28 **Rode Wouwen** *Milvus milvus*, zes **Zwarte Wouwen** *M migrans*, vijf **Zeearenden** *Haliaeetus albicilla*, één **Velduil** *Asio flammeus***,** vier **Roodpootvalken** *Falco vespertinus* en alweer zeven **Smellekens** *F columbarius.* **Slangenarenden** *Circaetus gallicus* pleisterden vooral (maar niet alleen) op traditionele plekken; ze werden de gehele periode op de Hoge Veluwe, Gelderland, en in het Fochteloërveen, Drenthe/Friesland, gezien, terwijl de laatste melding op De Hamert, Limburg, van 5 juli stamt. Op 16 augustus werd een exemplaar aan de Drentse zijde van het Drents-Friese Wold gefotografeerd. Minder voor de hand waren waarnemingen op 3 juli bij de Sophiapolder, Zeeland, op 9 juli bij Apeldoorn, Gelderland, en op 31 augustus bij Leeuwarden, Friesland. Naast vogels rondom de broedlocatie in het noordoosten van Groningen werden op c 12 plekken overtrekkende **Steppekiekendieven** *C macrourus* gemeld. Tussen 18 en 20 juli hield een puntgave, ongeringde juveniele **Sakervalk** *F cherrug* de gemoederen flink bezig op Wieringen, Noord-Holland. Dat het ging om een serieuze melding drong pas in de loop van 19 juli door. Slecht weer de volgende ochtend en vraagtekens over de status zorgden bij veel waarnemers voor een wat trage reactie en daarmee kwamen slechts enkele 10-tallen snelle beslissers op tijd op wat uiteindelijk de laatste dag van zijn verblijf zou blijken. Velen zouden deze en de daaropvolgende dagen tevergeefs de ruime omgeving afspeuren, met als slotstuk een georganiseerde, vruchteloze zoekactie rondom hoogspanningsmasten op 3 augustus. Indien aanvaard is dit een nieuwe soort voor Nederland. De vondst van een dode **Dwerguil** *Glaucidium passerinum* op een balkon in Lelystad, Flevoland, op 31 augustus ging om het eerste geval voor deze provincie.

HOPPEN TOT BUIDELMEZEN Op zeven plekken werden **Hoppen** *Upupa epops* aangetroffen maar in geen enkel geval betrof het een blijvertje. Limburg was deze periode dé plek voor **Bijeneter** *Merops apiaster*, waar weer werd gebroed; bij Groeve Hazelaar bij Koningsbosch liep vanaf 30 juli het aantal exemplaren sterk op, naar een apotheose van c 30 op 23 augustus. Na juliwaarnemingen van maximaal vier bij Sint Odiliënberg, Limburg, nam het aantal hier toe tot 25 op 16 augustus. Elders werden op zes plekken overvliegende opgemerkt. Op 11 locaties werden 25 **Draaihalzen** *Jynx torquilla* geringd: een reflectie van een weinig indrukwekkende nazomer voor deze soort. Het was een goede periode voor klauwieren. De zeldzaamste was het ruiende vrouwtje 'izabelklauwier' nabij de Bantpolder, Friesland, dat vanaf 16 augustus tot in september veel bekijks trok. De vogel had wat betreft de determinatie veruit de beste papieren voor een **Turkestaanse Klauwier** *Lanius phoenicuroides*; indien aanvaard is dit het vierde geval. Een **Kleine Klapekster** *L minor* was vanaf 30 augustus aanwezig bij Meliskerke, Zeeland, terwijl van 19 tot 30 augustus een populair mannetje **Roodkopklauwier** *L senator* nabij Duiven, Gelderland, verbleef. Uiteindelijk was het tot 1 Juli dat de **Notenkraker** *Nucifraga caryocatactes* het uithield in Wageningen, Gelderland. Velen worden rustiger naarmate ze ouder worden, minder avontuurlijk ook. Zou dat ook voor de **Schildraaf** *Corvus albus* gelden? Na zijn zwerftochten door Engeland, Wales en Nederland bestreek de vogel nog maar een klein gebied. Tot 7 juli kwamen er meldingen uit Burdaard, Friesland. Na een 12-daags verblijf verkaste hij naar de 12 km verderop gelegen binnenstad van Leeuwarden, waar hij de rest van de periode bleef. Een **Buidelmees** *Remiz pendulinus* trok op 27 augustus over telpost Eemshaven, Groningen. Daarnaast waren er nog slechts drie waarnemingen: een nestbouwend exemplaar op 3 juli in één van de laatste bolwerken van deze soort bij het Ketelmeer, Overijssel, en roepende vogels op 24 juli in de Sliedrechtse Biesbosch, Zuid-Holland, en op 23 augustus in de Grutte Wielen bij Leeuwarden.

BOSZANGERS TOT GRASZANGERS Op 22 augustus werd een **Bergfluiter** *Phylloscopus bonelli* geringd bij Castricum, Noord-Holland. De eerste **Sperwergrasmus** *Sylvia nisoria* van het jaar scharrelde op 12 augustus in de tuintjes bij De Cocksdorp op Texel. Een dag later verbleven er hier maximaal drie. Voorts werd de soort

502 Ralreiger / Squacco Heron *Ardeola ralloides*, De Blocq van Kuffeler, Almere, Flevoland, 9 juli 2019 *(Han Buckx)* **503** Steltstrandloper / Stilt Sandpiper *Calidris himantopus*, adult, Waverhoek, Utrecht, 20 augustus 2019 *(René van Rossum)* **504** Amerikaanse Goudplevier / American Golden Plover *Pluvialis dominica*, eerste-zomer, Willeskop, Utrecht, 11 augustus 2019 *(Robert van der Meer)* **505** Aziatische Goudplevier / Pacific Golden Plover *Pluvialis fulva*, adult zomer, Punt van Reide, Dollard, Groningen, 13 juli 2019 *(Lazar Brinkhuizen)*

van c 10 locaties langs de kust gemeld. Daarnaast werden er op vier ringstations nog eens 13 geringd. Nieuwe **Krekelzangers** *Locustella fluviatilis* zongen op 5 juli te Smelle Warren, Friesland en, opvallend gezien de datum en de (ook nog eens veelbezochte) locatie, op 13 juli langs het pad tussen IJmuiden en IJmuiderslag, Noord-Holland. Op 3 juli vond een fanatieke zoeker al zijn c vijfde **Orpheusspotvogel** *Hippolais polyglotta* van het jaar nabij Fromberg, Limburg; verder werden nog enkele long-stayers gemeld. Vanaf 2 augustus waren er op zeker 10 plekken (bewezen) veldwaarnemingen van **Waterrietzangers** *Acrocephalus paludicola*, met daarnaast nog 11 vangsten op zes ringlocaties. **Graszangers** *Cisticola juncidis* lieten een interessant verspreidingsbeeld zien. Zoals gebruikelijk kwamen de meeste waarnemingen uit Zeeuws-Vlaanderen, Zeeland, met meerdere (territoriale) exemplaren in het Verdronken Land van Saeftinghe en het Paulinaschor. Daarnaast was er vanaf begin augustus een opmerkelijke serie meldingen op zeven locaties rondom het Waddengebied. De meest noordelijke daarvan was op 29 augustus in de Eemshaven, Groningen. Verder verbleef er van 1 tot 22 juli nog een vogel bij Beugen, Noord-Brabant.

WATERSPREEUWEN TOT VLIEGENVLANGERS Op twee plekken in Zuid-Limburg doken eerstejaars **Roodbuikwaterspreeuwen** *Cinclus cinclus aquaticus* op, te weten op 12 juli nabij Kuttingen en van 20 juli tot ver in september in de Gulp in Gulpen – dispersie vanuit België, of zou er ergens in Nederland zijn gebroed? Op 16 juli werd een mannetje **Beflijster** *Turdus torquatus* gefotografeerd in een tuin bij Alde Feanen, Friesland. Volgens de bewoner was de vogel zeker een week en

506 Vermoedelijke Turkestaanse Klauwier / presumed Red-tailed Shrike *Lanius phoenicuroides*, vrouwtje, Bantpolder, Friesland, 21 augustus 2019 *(Maurits Martens)* **507** Schildraaf / Pied Crow *Corvus albus*, adult, Leeuwarden, Friesland, 18 augustus 2019 *(Nicky van Veenendaal)* **508** Zwartkopgors / Black-headed Bunting *Emberiza melanocephala*, mannetje, Sint Annen, Groningen, 10 juni 2019 *(Jacob Bosma)* **509** Cirlgors / Cirl Bunting *Emberiza cirlus*, mannetje, Nederweert, Limburg, 12 juli 2019 *(Enno B Ebels)*

ook nog in het gezelschap van een vrouwtje aanwezig. Het mannetje **Kleine Vliegenvanger** *Ficedula parva* van de Hoge Veluwe werd nog tot 4 juli gemeld. Eind augustus was er een mooie influx van **Bonte Vliegenvangers** *F hypoleuca*, met bijvoorbeeld c 200 ringvangsten: vergeleken met de periode 2014-18 is dat twee- tot achtmaal meer dan andere jaren. Er was een nagekomen melding van een mannetje **Withalsvliegenvanger** *F albicollis* dat zich van 19 tot 28 mei territoriaal gedroeg bij een nestkast te Leersum, Utrecht.

PIEPERS TOT GORZEN De 162 vanaf trektelposten gemelde **Duinpiepers** *Anthus campestris* zorgden voor verreweg het hoogste aantal in deze periode van de afgelopen 10 jaar – het gemiddelde is 61. Met 26 had telpost Loozerheide bij Weert, Limburg, het hoogste aandeel. Ook de verspreiding was ruimer dan in voorgaande jaren. Ze werden uit 87 uurhokken gemeld; in de 2014-18 lag dat op 39-73 per jaar. Het hoogste aantal verbleef rondom de Brobbelbies bij Maashorst, Noord-Brabant, waar er eind augustus maximaal zeven werden gemeld. Er werden op negen locaties **Roodmussen** *Erythrina erythrina* vastgesteld, waaronder ringvangsten op 5 juli bij Castricum (adult vrouwtje) en op 24 augustus bij Overdinkel, Overijssel (eerstejaars). Naast – inmiddels steeds schaarser wordende – meldingen uit Limburg werden op c vijf plekken **Europese Kanaries** *Serinus serinus* gemeld, met een overtrekkende op 24 augustus bij Vlissingen als meest opvallende. Er was een nagekomen melding van een mannetje **Zwartkopgors** *Emberiza melanocephala* op 10 juni bij Beijum, Groningen. Kleedanalyse deed vermoeden dat het om dezelfde vogel ging als die een dag eerder op Ameland, Friesland, werd gefotografeerd. Vooral in de

510 Withalsvliegenvanger / Collared Flycatcher *Ficedula albicollis*, adult mannetje, met Bonte Vliegenvangers / European Pied Flycatchers *F hypoleuca*, Utrechtse Heuvelrug, Utrecht, 18 mei 2019 *(Pieter van den Heuvel)*

511 Withalsvliegenvanger / Collared Flycatcher *Ficedula albicollis*, adult mannetje, Utrechtse Heuvelrug, Utrecht, 18 mei 2019 *(Pieter van den Heuvel)*

512 Roodkopklauwier / Woodchat Shrike *Lanius senator*, mannetje, Duiven, Gelderland, 24 augustus 2019
(Martijn Verdoes)

513 Kleine Klapekster / Lesser Grey Shrike *Lanius minor*, Meliskerke, Zeeland, 4 september 2019
(Thomas Luiten)

514 Waterrietzanger / Aquatic Warbler *Acrocephalus paludicola*, eerste-kalenderjaar, Dordrecht, Zuid-Holland, 24 augustus 2019 *(Michel Kapoen)*

515 Roodbuikwaterspreeuw / Red-bellied Dipper *Cinclus cinclus aquaticus*, eerste-kalenderjaar, Gulpen, Limburg, 16 september 2019 *(Alex Bos)*

516 Bergfluiter / Western Bonelli's Warbler *Phylloscopus bonelli*, Castricum, Noord-Holland, 22 augustus 2019 *(Tim van der Meer)*

517 Ortolaan / Ortolan Bunting *Emberiza hortulana*, eerste-kalenderjaar, Kennemerduinen, Noord-Holland, 28 augustus 2019 *(Arnoud B van den Berg/Vrs van Lennep)*

laatste dagen van augustus kwam de trek van **Ortolanen** *E hortulana* op gang. In totaal werden er vanaf telposten 57 waargenomen. Dankzij het groeiende aantal locaties waar 's nachts geluidsopnamen worden gemaakt, weten we inmiddels dat de soort ook in de nachtelijke uren regelmatig doortrekt. In deze periode ging het om 41 exemplaren. Op 28 augustus werd bovendien een exemplaar geringd bij Bloemendaal, Noord-Holland. Het semi-stilgehouden zingende mannetje **Cirlgors** *E circlus* van Nederweert, Limburg, werd tot 22 juli gemeld.

Onze grootste dank gaat ditmaal uit naar Roy Slaterus. De eerste waarnemingenrubriek waar Roy aan meewerkte was Dutch Birding 30:3 (2008). Ruim 11 jaar en 68 rubrieken als eerste auteur later besloot hij, als 'geweten' en controleur met oog voor detail, te stoppen. Om af te bouwen verzorgde hij nog eenmaal de tekst voor één van zijn lievelingssoorten: Witoogeend (Roodhalsgans was al gedaan). Verder danken we Toy Janssen, Frank van der Meer en Jeroen van Vianen voor informatie die bijdroeg aan het samenstellen van deze rubriek. We maakten dankbaar (en ruim) gebruik van de websites www.dutchbirdalerts.nl, www.sovon.nl, www.trektellen.nl en www.waarneming.nl.

518 Dwerguil / Eurasian Pygmy Owl *Glaucidium passerinum*, Lelystad, Flevoland, 31 augustus 2019 *(Jaap Eerdmans)*

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