

Field identification criteria for second calendar-year Baltic Gull

Ruud G M Altenburg, Ies Meulmeester, Mars J M Muusse, Theodoor O V Muusse & Pim A Wolf

Subspecific identification of Lesser Black-backed Gulls *Larus fuscus* took flight in the late 1990s, when Jonsson (1998) and Rauste (1999) published their landmark papers on the identification of Baltic Gull *L f fuscus* (and Heuglin's Gull *L heuglini*). Jonsson (1998) classified nominate *fuscus* into three identifiable age classes: **1** second calendar-year birds in spring; **2** third calendar-year birds in spring; and **3** adults in autumn. Armed with Jonsson's (1998) well-defined identification

criteria, many of which centred around moult, birders in western Europe set out to find vagrant nominate *fuscus*. Their subsequent field observations, however, indicated that the variation in the western taxa *L f graellsii* and, particularly, *L f intermedius* had been rather underestimated by Jonsson (1998) and Rauste (1999). Consequently, identification appeared to be far less straightforward than previously assumed. This applied in particular to third calendar-year birds and adults (cf Gibbins

2004, Muusse et al 2005, Winters 2006).

Winters (2006) reviewed Jonsson's (1998) original identifiable age groups based on data collected primarily in the Netherlands. He defined three 'identifiable types' of nominate *fuscus* which, in short, comprised: **1** second calendar-year birds in spring/summer showing at least eight new primaries and preferably a plumage typical of nominate *fuscus*; **2** second calendar-year birds in autumn showing three generations of primaries; and **3** third calendar-year birds in spring showing two generations of primaries, with the outer ones still fresh and p10 showing a small mirror. His paper did not deal with adults but Gibbins (2004) had already addressed the identification problems for this age group.

Given the uncertainties about fail-safe identification criteria for nominate *fuscus*, rarities committees such as the Dutch rarities committee (CDNA) decided to only accept (colour-)ringed birds of known age and provenance. The CDNA, however, acknowledged that this practice might be too restrictive, and also that published literature might allow for a broader range of acceptable 'types'. For that reason, the CDNA asked us to review existing literature and to match these data with our own field experience in order to investigate whether any age/plumage 'types' can be identifiable with enough certainty as to allow acceptance by the CDNA. The current paper summarises the results of this investigation.

Material and methods

As part of ongoing research stimulated by the Gull Research Organisation (www.gull-research.org), we collected data on ringed second calendar-year western birds (n=146) from the period mid-March to late June (see below), comprising *graellsii* (including so-called 'Dutch intergrades'; n=86) from Belgium, Britain, France, Germany and the Netherlands, as well as *intermedius* (n=60) from Denmark, Norway and Sweden. Between mid-March and late June, the extent of the post-juvenile moult of tail-feathers, secondaries and primaries in virtually all second calendar-year Lesser Black-backed Gulls can still be reliably assessed; later in the season, this assessment is progressively obscured by advancing complete moult. The moult stage of birds observed by the authors was scored in the field, while the remainder were scored from photographs. Tail-feathers were considered only if the entire tail could be scored, and secondaries if all feathers in at least one wing were visible. Only the outer five primaries were scored, as these are visible at rest and therefore

could be scored in all birds.

Compared with previous studies, our study comprised a larger database of individuals of known age and provenance (based on ringing details), leading to more robust conclusions about the prospect of safely identifying birds in certain age or plumage classes.

Second calendar-year birds

In this paper, we concentrate on second calendar-year nominate *fuscus* because our studies indicate that this age-class is the most safely identifiable, based on moult and plumage characters. We present a set of criteria that, in our opinion, enables safe identification of well-observed and well-documented individuals that meet the proposed criteria. Our criteria will enable observers in the field to make certain identifications and national or regional rarities committees to consider reports of unringed nominate *fuscus*.

Moult and ageing

Graellsii/intermedius

The variation in moult timing in second calendar-year birds mirrors that of third calendar-year birds (as described in Muusse et al 2005). On average, post-juvenile moult in *intermedius* is more extensive than in *graellsii*. Replacement of tail-feathers during the first winter is rather uncommon in *graellsii* (five out of 27 birds (19%), all from the Netherlands) but regular in *intermedius* (10 out of 17 (59%), from Denmark and Norway). None of the 18 *graellsii* that could be scored for replaced flight-feathers showed second generation secondaries, versus three out of 14 (21%) *intermedius*. The most advanced individual, from southern Norway, had replaced all tail-feathers and half of its secondaries. None of the 86 *graellsii* or 60 *intermedius* had replaced any of the outer five primaries; moreover, none of the 17 *graellsii* and 14 *intermedius* for which the entire wing could be scored showed arrested moult in the inner primaries.

Given the extensive variation in Lesser Black-backed Gull, our sample of ringed birds is unlikely to tell the complete story. Indeed, from June onwards, it is not uncommon to observe second calendar-year (*graellsii/intermedius*-type birds that have replaced all secondaries. In rare cases, such western-type birds even have renewed a few inner primaries (Winters 2006; pers obs). Although plumage-wise these birds resemble *intermedius*, some may actually represent *fuscus* (cf Altenburg et al 2007).

Olsen & Larsson (2004) quote Peter Adriaens,

Field identification criteria for second calendar-year Baltic Gull



385 Presumed Baltic Gull / vermoedelijke Baltische Mantelmeeuw *Larus fuscus fuscus*, second calendar-year, Zeebrugge, West-Vlaanderen, Belgium, 20 June 2011 (*Peter Adriaens*). Typical individual showing all new primaries, white head and underparts, and plumage consisting of worn, plain brown wing-coverts and scapulars intermixed with adult-like blackish feathers. Note that, on current criteria, this bird cannot be accepted by the Belgian rarities committee (BAHC) and is therefore referred to as presumed. **386** Presumed Baltic Gull / vermoedelijke Baltische Mantelmeeuw *Larus fuscus fuscus*, second calendar-year (centre), with Lesser Black-backed Gulls / Kleine Mantelmeeuwen *L f graellsii/intermedius*, Amsterdam, Noord-Holland, Netherlands, 12 August 2010 (*Ruud G M Altenburg*). Although very late in the season, this individual still stands out by plumage and full set of second generation primaries. Note that two western-type birds still show juvenile outer primaries. On current criteria, this bird cannot be accepted by the Dutch rarities committee (CDNA) and is therefore referred to as presumed. **387** Presumed Baltic Gull / vermoedelijke Baltische Mantelmeeuw *Larus fuscus fuscus*, second calendar-year (left), Amsterdam, Netherlands, 10 June 2005 (*Ruud G M Altenburg*). Compare with Lesser Black-backed Gull *L f graellsii* on right, ringed (but ring barely visible on this photograph) as pullus at IJmuiden, Noord-Holland, Netherlands, which shows worn juvenile primaries and greater coverts. Although larger than the Dutch *graellsii*, this nominate *fuscus* can be identified by combination of eight second generation primaries (pointed, brown and very worn p10 just visible) and plumage. Note that, on current criteria, this bird cannot be accepted by the Dutch rarities committee (CDNA) and is therefore referred to as presumed.

stating that 'very few [second calendar-year] *intermedius/graellsii* [are as] similarly advanced [as nominate *fuscus*]'. PA (pers comm) has since commented that 'similarly advanced' was an expression too vague and ambiguous, and mainly referred to moult of the wing-coverts, tail-feathers and secondaries'. He confirmed 'not yet having seen a colour-ringed, second calendar-year *graellsii/intermedius* that had replaced primaries in winter'.

Graellsii/intermedius commence the first complete moult in the spring of their second calendar-year. By July-August, their plumage will either show obvious moult gaps or look very fresh. In many birds, the worn juvenile outer primaries are still present; in others the wing looks atypically short because the outer primaries are missing or growing. Second calendar-year *graellsii/intermedius* do not acquire a full set of second generation primaries before the end of September (pers obs), when they finish their complete moult.

Nominate *fuscus*

For nominate *fuscus*, a complete moult in the first winter is the norm, with two-thirds of the birds returning to Finland having replaced all flight-feathers (Rauste 1999, Koskinen & Rauste 2006). The majority of the second calendar-year nominate *fuscus* in western Europe are observed in May-June, when they are relatively easily detected by their advanced plumage, including glossy black second generation primaries with rounded tips (plate 385 and 387). Moult in summer is restricted in those second calendar-year *fuscus* that have completely renewed their plumage on the wintering grounds (Rauste 1999, Koskinen & Rauste 2006). During their stay in Europe, their appearance hardly changes. In July-August, some of the advanced birds start replacing second generation inner primaries to third generation feathers (see Koskinen & Rauste 2006), whereas in others moult is limited to just some wing-coverts. This contrasts strongly with second calendar-year *graellsii/intermedius* which undergo a complete moult in summer. When the quality of the plumage, particularly the primaries, can be properly assessed, 'spring' second calendar-year *fuscus* therefore can be identified into August (plate 386).

Some advanced second calendar-year nominate *fuscus* are very difficult to age. In addition to having a plumage with a high proportion of near-black, adult-like feathers, these birds may already show a yellow bill (sometimes also with a hint of a red gonys spot), a red orbital ring and pale yellow legs; these features make them strongly resemble

third calendar-year birds (plate 388). However, the flight-feathers should provide a strong clue to their real age: second generation inner primaries are all-black or have a narrow white tip (<10 mm), whereas third generation ones are more adult-like and have a (much) broader tip (>10 mm).

In spring, advanced second calendar-year nominate *fuscus* can be misidentified as third calendar-year *intermedius*, as both show second generation flight-feathers. The best character to separate dark-mantled third calendar-year *intermedius* from advanced second calendar-year nominate *fuscus* is the state of wear in the flight-feathers. In second calendar-year nominate *fuscus*, the central and outer primaries have been replaced in late winter, so these feathers normally look fresh in spring. In third calendar-year *intermedius*, these feathers have been replaced several months earlier, so they are more worn. Third calendar-year *intermedius* often moult tail-feathers to third generation feathers in the winter quarters (Muisse et al 2005) and return to Europe with a checkered tail-bar or all-white tail-feathers, whereas second calendar-year nominate *fuscus* should show a distinct tail-bar, often white tipped. An example of an incorrectly aged bird is plate 206 in Winters (2006), showing a second calendar-year nominate *fuscus* wrongly identified as a third calendar-year *graellsii/intermedius*.

Second calendar-year nominate *fuscus* typically show upperparts consisting of a mix of plain dark brown and blackish-grey feathers (plate 385-388). The adult-like feathers in some individuals are slightly paler grey, possibly reflecting the considerable variation in mantle colour in adults (Barth 1966, Jonsson 1998). Occasionally, birds are observed with eight or more second generation primaries but with a plumage strongly differing from the norm. A strongly marked ('barred') plumage (plate 389) is common in *graellsii/intermedius* but unusual in *fuscus*. Although data on the phenotype of intergrades is lacking, such 'barred' individuals could potentially represent intergrades between *intermedius* and *fuscus* from mixed Norwegian colonies. Individuals with unusually pale grey plumage (plate 390), on the other hand, are potential Heuglin's Gull candidates. In his description of 'identifiable types' of second calendar-year *fuscus*, Winters (2006) argued that a typical plumage pattern was 'preferable'. In our view, a plumage typical for second calendar-year *fuscus* is essential for positive identification. Individuals with a plumage obviously deviating from the norm should not be considered.



388 Presumed Baltic Gull / vermoedelijke Baltische Mantelmeeuw *Larus fuscus fuscus*, second calendar-year, Heemskerk, Noord-Holland, Netherlands, 13 June 2010 (Ruud G M Altenburg). Very advanced individual that could easily be taken for third calendar-year. Careful assessment of plumage is required to determine age in birds like this. Note that, on current criteria, this bird cannot be accepted by the Dutch rarities committee (CDNA) and is therefore referred to as presumed. **389** Probable Baltic Gull / waarschijnlijke Baltische Mantelmeeuw *Larus fuscus fuscus* (front), second calendar-year, with Lesser Black-backed Gull / Kleine Mantelmeeuw *L f graellsii/intermedius*, Amsterdam, Noord-Holland, Netherlands, 28 June 2005 (Ruud G M Altenburg). Compare primaries: brown and pointed juvenile feathers in *graellsii/intermedius* in the back, black and rounded second generation feathers in the probable nominate *fuscus*. 'Barred' plumage is occasionally seen in nominate *fuscus* but is much more common in western birds. Although likely to be pure nominate *fuscus*, theoretically birds like this could represent intergrade *intermedius* x nominate *fuscus* and, in our view, are better left unidentified. **390** 'Lesser black-backed gull' / 'kleine mantelmeeuw' *Larus fuscus/heuglini*, second calendar-year, Amsterdam, Noord-Holland, Netherlands, 25 June 2006 (Ruud G M Altenburg). All primaries renewed, except for outer ones which are very worn. By mid-July, this bird was replacing inner primaries to third generation feathers. Such moult pattern is found only in most advanced Baltic Gulls *L f fuscus* but third generation scapulars and wing-coverts are too pale grey for this taxon. Although 'paler-than-average' nominate *fuscus* have hatched in Finland (cf Koskinen & Rauste 2006), it is safest to leave such individuals unidentified until variation in Heuglin's Gull *L heuglini* is better understood. **391** Presumed Baltic Gull / vermoedelijke Baltische Mantelmeeuw *Larus fuscus fuscus*, second calendar-year, IJmuiden, Noord-Holland, Netherlands, 1 September 2006 (Mars J M Muusse). Rare example of individual showing three generations of primaries. In left wing, p1 is third generation, p2-7 second generation and p8-10 juvenile; p5 is broken off. In right wing, moult score is similar but p1 is missing/growing and p4 seems to be damaged. Most likely moult scenario is that this bird returned to Europe with tail, secondaries and p1-7 renewed on wintering grounds. Judging from poor state of primaries, instead of continuing with p8, it recommenced with p1. Note that, on current criteria, this bird cannot be accepted by the Dutch rarities committee (CDNA) and is therefore referred to as presumed.

Any second calendar-year Lesser Black-backed Gull showing three generations of primaries in autumn has replaced less than 10 primaries on the wintering grounds and then suspended its moult. After migrating north, rather than continuing with the next remaining juvenile primary, they recommence with p1 and replace a number of second generation inner primaries during the summer months (plate 391). We concur with Winters (2006) that such a scenario is extremely unlikely to occur in the western taxa and should be considered exclusive for nominate *fuscus*.

Criteria for identifiable second calendar-year nominate fuscus

Second calendar-year nominate *fuscus* is variable. Some individuals do not replace any primaries on the wintering grounds and such birds are regularly inseparable from *graellsii/intermedius* (cf, eg, Altenburg et al 2006). The majority, however, show a full set of second generation primaries in spring, a feature that has never been recorded in ringed (and hence proven) second calendar-year *graellsii/intermedius*. On the basis of our sample of western-type birds and published data on nominate *fuscus* (Koskinen & Rauste 2006), we argue

that any second calendar-year Lesser Black-backed Gull, in the period April-June, showing the following set of characters can safely be classified as nominate *fuscus*: **1** all rectrices, secondaries and at least eight primaries are second generation feathers; the primaries and tail should be checked for very advanced individuals that can be mistaken for third calendar-year birds; **2** the upperparts are plain dark brown, mixed with dark grey to blackish-grey adult-like feathers. In some birds, the dark brown scapulars may have acquired paler fringes due to wear, while in others a faint pattern on the (greater) coverts may be visible. Birds that show scapulars and/or wing-coverts with obvious markings (cf plate 389) or unusually pale grey adult-type feathers (cf plate 390), however, should not be considered. Note that blackish-grey scapulars and plain upperwing-coverts alone are supportive characters only and not exclusive for nominate *fuscus*, because a combination of both is sometimes found in *intermedius* (cf, eg, plate 226 in Altenburg et al 2006).

As the appearance of advanced second calendar-year *fuscus* does not change dramatically during summer, basically the same criteria apply to birds in July-August. During this period, identi-

392 Baltic Gull / Baltische Mantelmeeuw *Larus fuscus fuscus* (J844), fourth calendar-year, Tampere, Finland, 2 May 2009 (Hannu Koskinen). Ringed as pullus at Heimlaukoya Lemmingsvær, Tranøy, Troms, Norway, and previously observed at Ashdod North Beach, Israel, in April 2007. With such large black marking to bill and absence of white mirror on p10, this bird would have been aged as third calendar-year if it had not been ringed.



fiable second calendar-year *fuscus* should show a full set of slightly to moderately worn second generation primaries, or they should already be replacing the inner primaries to third generation feathers. Second calendar-year *fuscus* that returned to Europe with one or two juvenile outer primaries may be replacing these feathers in summer and could potentially be confused with the most advanced *intermedius*. Therefore, in July-August, only birds that have returned with a full set of second generation primaries should be considered. In autumn, second calendar-year birds showing three generations of primaries can also be accepted as *fuscus*. The detection of such a moult pattern requires very close attention and detailed photographs.

Third calendar-year birds

Winters' (2006) criterion for third calendar-year birds is far more restrictive than Jonsson's (1998), which only required a moult contrast to be present. Theoretically, this should exclude any third calendar-year *intermedius* but, in practice, such birds are inseparable from fourth calendar-year birds still showing significant signs of immaturity (plate 392). As unringed third calendar-year birds cannot be aged with absolute confidence, identification of this age class to subspecies level is not possible on current knowledge.

Conclusions and advice to rarities committees

Based on a combination of a fairly extensive data set of ringed western-type birds and a decade of field work, we are confident that the majority of second calendar-year nominate *fuscus* can be identified even when not wearing a (colour) ring. We suggest that rarities committees reconsider the decision to only accept ringed nominate *fuscus* of known provenance. Correct ageing of candidate birds is obviously critical, and it is important to note that this is not always straightforward.

We also conclude that, because of the occasional immature-looking fourth calendar-year nominate *fuscus*, third calendar-year birds cannot safely be aged. The implication of this is that unringed birds of this age are not identifiable with certainty. On current knowledge, this leaves second calendar-year birds of the type described above as the only identifiable age class of unringed nominate *fuscus*.

Further information

A dedicated section on the Gull Research Organisation website (www.gull-research.org/2cyfuscus) provides additional photographs of the individ-

uals in plate 385-391, as well as a series of acceptable and non-acceptable individuals that are not discussed in this paper.

Acknowledgements

We thank Peter Adriaens, Chris Gibbins and Hannu Koskinen for their comments on the manuscript. Oskar Kenneth Bjørnstad, Roland-Jan Buijs, Kees Camphuysen, Morten Helberg and Nils Helge Lorentzen kindly helped us to extend our database of ringed birds. Special thanks go out to the following photographers: Toni Alcocer, Lucien Brinkhof, Michael Davis, Ronald van Dijk, Miguel Domínguez Santaella, Marc Fasol, Nelson Fonseca, Roland François, Rafa García, Miguel Juan, Maarten van Kleinwee, Tony Le Huu Nghia, Jean-Pierre Leys, Richard Mielcarek, Maties Rebassa, François Richir, Bram Rijksen, Luis José Salaverri Leiras, John Sanders, Jan Zorgdrager and in particular Delfín González, Antonio Gutierrez, Javier Marchamalo and Gabriel Martín.

Samenvatting

VELDKENMERKEN VOOR HERKENNING VAN TWEEDEJAARS BALTISCHE MANTELMEEUW In dit artikel worden de identificatiecriteria voor Baltische Mantelmeeuw *Larus fuscus fuscus* herzien. Aan de hand van de bestaande literatuur en jarenlange veldervaring wordt geadviseerd welke ongeringde vogels voor aanvaarding in aanmerking zouden moeten komen. Met name tweede-kalenderjaar vogels worden behandeld, omdat deze leeftijds categorie de beste kans biedt op herkenning.

Graellsii/intermedius: Uit onderzoek aan geringde tweede-kalenderjaar *L f graellsii* (n=86) uit België, Britannië, Duitsland, Frankrijk en Nederland en *L f intermedius* (n=60) uit Denemarken, Noorwegen en Zweden blijkt dat het vervangen van staartpenen tijdens de eerste winter ongewoon is in *graellsii* (vijf van de 27 vogels (19%) waarbij dit kenmerk beoordeeld kon worden), maar regelmatig voorkomt in *intermedius* (10 van de 17; 59%). Geen van de 18 op dit kenmerk beoordeelbare *graellsii* had armpennen geruid, tegenover drie van de 14 (21%) *intermedius*. Rui in de buitenste vijf armpennen kwam bij geen van de 146 geringde individuen voor. In het veld worden echter wel sporadisch (ongeringde) vogels aangetroffen met enkele geruide binnenste handpenen, maar met een kleed dat lijkt te wijzen op westelijke herkomst. *Graellsii/intermedius* begint de eerste complete rui in het voorjaar van het tweede kalenderjaar. In juli-augustus vertoont hun kleed duidelijk ruigaten of ziet het er zeer vers uit. De vleugel bevat nog enkele sterk gesleten juveniele handpenen of lijkt atypisch kort, omdat de buitenste handpenen ontbreken of groeien.

Fuscus: Tweederde van alle nominaat *fuscus* ondergaat een complete rui in de eerste winter, inclusief alle staart-, arm- en handpenen. De meeste tweede-kalenderjaar vogels worden in mei-juni waargenomen, als ze relatief gemakkelijk te herkennen zijn aan hun vergevorderde kleed en glimmend zwarte handpenen met afgeronde toppen (plaat 385 en 387). Gedurende de zomer verandert de verschijning van een vergevorderde tweede-kalenderjaar nominaat *fuscus* nauwelijks. Dit con-

trasteert sterk met een tweede-kalenderjaar *graellsii/intermedius*, die in de zomer een complete rui ondergaat. Als de kwaliteit van het verenkleed goed beoordeeld kan worden is tweede-kalenderjaar nominaat *fuscus* daarom tot in augustus herkenbaar (plaat 386).

Sommige van de meest vervorderde tweede-kalenderjaar nominaat *fuscus* zijn zeer lastig op leeftijd te brengen omdat ze verward kunnen worden met derde-kalenderjaar nominaat *fuscus* of *intermedius* (plaat 388). Het onderscheid tussen tweede- en derde-kalenderjaar nominaat *fuscus* kan worden bepaald aan de hand van de binnenste handpennen. Tweede-generatie binnenste handpennen hebben een smalle lichte top (<10 mm), tegenover een (veel) bredere top (>10 mm) in derde-generatieveren. Voor het onderscheid met derde-kalenderjaar *intermedius* moet gelet worden op kwaliteit van de armen handpennen. Aangezien deze bij *intermedius* enkele maanden eerder vervangen zijn, zijn deze ten opzichte van nominaat *fuscus* meer gesleten. Derde-kalenderjaar *intermedius* toont daarnaast doorgaans een staart met enkele geheel witte staartpennen, dan wel een geheel witte staart; tweede-kalenderjaar nominaat *fuscus* heeft een complete staartband, vaak met smalle witte veertoppen.

De bovendelen van een typische tweede-kalenderjaar nominaat *fuscus* zijn ongetekend donkerbruin, vermengd met adult-achtige zwartgrijze veren (plaat 385-388). De laatste zijn in sommige individuen wat lichter grijs dan in andere. Vogels met een sterk getekend kleed (plaat 389), dat normaal is voor *graellsii/intermedius* maar atypisch voor nominaat *fuscus*, zouden niet in behandeling moeten worden genomen. Hetzelfde geldt voor individuen met een ongewoon lichtgrijs kleed (plaat 390), die potentiële Heuglins Meeuw *L. heuglini*-kandidaten zijn.

Een rui patroon dat resulteert in drie generaties handpennen in het najaar moet als exclusief voor nominaat *fuscus* worden beschouwd. Vogels met een dergelijk rui patroon (plaat 391) komen dus eveneens voor aanvaarding in aanmerking.

Criteria voor herkenbare tweede-kalenderjaar nominaat fuscus: Tweede-kalenderjaar Kleine Mantelmeeuwen in de periode april-juni komen in aanmerking voor aanvaarding als nominaat *fuscus* als: **1** alle staart- en armpennen en minimaal acht handpennen geruid zijn naar tweede-generatieveren; **2** de bovendelen een mengeling tonen van ongetekende donkerbruine en donkergrijze tot zwartgrijze veren. In sommige vogels kunnen de donkerbruine veren lichtere toppen hebben ten gevolge van sleet, terwijl in andere een vaag patroon zichtbaar is op de (grote) dekveren. Vogels met een duidelijk getekend of opvallend lichtgrijs kleed komen niet voor aanvaarding in aanmerking.

Min of meer dezelfde kenmerken gelden voor de periode juli-augustus. Herkenbare tweede-kalenderjaar nominaat *fuscus* heeft dan licht tot matig gesleten handpennen en kan reeds de binnenste handpennen naar derde-

generatieveren ruïen. Vogels die met één of twee juveniele handpennen naar Europa zijn teruggekeerd zouden in theorie verward kunnen worden met de snelst ruiende *intermedius*. Alleen een tweede-kalenderjaar nominaat *fuscus* die in het voorjaar al een complete set nieuwe handpennen had komt dus in juli-augustus voor aanvaarding in aanmerking. In het najaar geldt dit voor vogels met drie generaties handpennen.

Derde kalenderjaar vogels: In theorie zouden ongevingde vogels met een zeer vervorderde rui voor aanvaarding in aanmerking kunnen komen. Het probleem is echter dat deze in de praktijk niet te onderscheiden zijn van vierde-kalenderjaar vogels die nog duidelijke tekenen van onvolwassenheid tonen (plaat 392).

Aanvullende informatie: Op een apart onderdeel van de Gull Research Organisation website (www.gull-research.org/2cyfuscus) staan aanvullende foto's van de vogels van plaat 385-391, alsmede een serie aanvaardbare en niet-aanvaardbare vogels die niet in dit artikel zijn behandeld.

References

- Altenburg, R G M, Muusse, M J M, Luijendijk, B-J & Muusse, T O V 2006. Restricted moult in second calendar-year Baltic Gull. *Dutch Birding* 28: 162-164.
- Altenburg, R G M, Luijendijk, B-J, Muusse, M J M & Muusse, T O V 2007. Moulting sequence in second calendar-year Baltic Gull at Amsterdam in May 2006. *Dutch Birding* 29: 95-97.
- Barth, E K 1966. Mantle colour as a taxonomic feature in *Larus argentatus* and *Larus fuscus*. *Nytt Magasin for Zoologi* 13: 56-82.
- Gibbins, C N 2004. Is it possible to identify Baltic and Heuglin's Gulls? *Birding Scotland* 7: 154-186.
- Jonsson, L 1998. Baltic Lesser Black-backed Gull *Larus fuscus fuscus* – moult, ageing and identification. *Birding World* 11: 295-317.
- Koskinen, H & Rauste, V 2006. Primary moult of Baltic Gull during the first 15 months. *Dutch Birding* 28: 158-161.
- Muusse, T O V, Muusse, M J M, Luijendijk, B-J & Altenburg, R G M 2005. Identification update: moult variability in 3rd calendar-year Lesser Black-backed Gulls. *Birding World* 18: 338-348.
- Olsen, K M & Larsson, H 2004. *Gulls of Europe, Asia and North America*. Second edition. London.
- Rauste, V 1999. Kennzeichen und Mauer von 'Baltischen Heringmöwen' *Larus [fuscus] fuscus* und 'Tundramöwen' *L. [fuscus] heuglini*. *Limicola* 13: 105-128, 153-188.
- Winters, R 2006. Moulting and plumage variation in immature Lesser Black-backed Gulls in the Netherlands. *Dutch Birding* 28: 140-157.

Ruud G M Altenburg, De Waterdief 5, 1911 JN Uitgeest, Netherlands (r.altenburg@xs4all.nl)

Ies Meulmeester, Leliestraat 27, 4461 PC Goes, Netherlands (iesmeulmeester@solcon.nl)

Mars J M Muusse, Ruysdaelhof 13, 2215 AJ Voorhout, Netherlands (marsmuusse@gmail.com)

Theodoor O V Muusse, Billitonstraat 19, 3312 SB Dordrecht, Netherlands (themuusse@chello.nl)

Pim A Wolf, Batenburg 63, 4385 HG Vlissingen, Netherlands (pim.wolf@gmail.com)