

Moult and plumage variation in immature Lesser Black-backed Gulls in the Netherlands

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Identification of 'large white-headed gulls' in general, and of 'lesser black-backed gulls' in particular, has long been the subject of debate. Extensive variation in plumage and structure within and between populations and in patterns of moult and ageing, has resulted in slow advances in field identification of this group of taxa. Jonsson (1998) described the identification of 'Baltic Gull' *Larus fuscus fuscus* (hereafter *fuscus*) in a western European context, Gruber (1999) discussed the identification of juvenile – and to a lesser extent older immature – Lesser Black-backed Gulls and Rauste (1999) dealt with 'Baltic Gull' and 'Tundra Gull' (Heuglin's Gull) *L heuglini* (hereafter *heuglini*) from a Finnish perspective. The emphasis in these papers is on describing the variation and identification of the north-eastern taxa *fuscus* and *heuglini*. Generally, variation in (western) Lesser Black-backed Gull was believed to be rather well known; eg, as emphasized by the most recent publication by Olsen & Larsson (2004). The general picture was that the taxa *L f graellsii* (hereafter *graellsii*) and *L f intermedius* (hereafter *intermedius*) differ only slightly in upperpart coloration as adults, while *fuscus* is rather distinct at all ages, except perhaps for juveniles. From recent observations, many of them made in the Netherlands, it has become clear that much of the plumage variation observed does not fit in with the generally accepted picture and that especially continental western European birds deviate strongly from what has been described so far. Some of these and similar findings have been dealt with or mentioned elsewhere (Adriaens 2002, AERC TAC 2003, Gibbins 2005, Muusse et al 2005). Here, some aspects of the moult and plumage variation of Lesser Black-backed Gulls are reviewed in the light of these observations in order to evaluate their use as an identification feature. Subsequently the identifiability of *fuscus* is evaluated.

Taxonomy, phylogeny and nomenclature

The systematics of 'lesser black-backed gulls' have recently been reviewed by Yésou (2002), who proposed to maintain *intermedius* as a valid taxon and to regard Lesser Black-backed Gull (comprising *fuscus*, *graellsii* and *intermedius*) and Heuglin's Gull as separate species. Almost simultaneously, a detailed study on the phylogeny of 'lesser black-backed gulls' was published (Liebers & Helbig 2002). They found some evidence for a three-way grouping within the complex (*graellsii* & *intermedius*, *fuscus*, *heuglini* & *barabensis*) but the differences were slight and separation between

the groups was far from complete. The western taxa *graellsii* and *intermedius* showed such a high degree of intergradation that they behave as a single population and should therefore be treated as a single taxon. Gene flow was also present between *fuscus* and *graellsii/intermedius*, but at a lower level. The authors postulated that studying Swedish birds (which were not included in their study) would most probably reveal a stronger gene flow between *fuscus* and *intermedius*, reducing the (apparent) separation between the groups. The taxonomic advisory committee of the Association of European Rarities Committees (AERC) decided to leave the question of assigning species status to both Baltic Gull and Heuglin's Gull pending (AERC TAC 2003). The CSNA (2004), having maintained a three-way split since 1998, lumped the taxa into two species: Lesser Black-backed Gull *L fuscus* (comprising *graellsii*, *intermedius* and *fuscus*) and Heuglin's Gull *L heuglini* (comprising *heuglini* and *barabensis*).

Status and occurrence in the Netherlands

Lesser Black-backed Gull is a numerous bird along the Dutch coast in March-September. Virtually all birds found in the Netherlands belong to *graellsii* or *intermedius*, ie, populations using a migration route along the European west coasts. The north-easterly *fuscus* is considered very rare; 11 records had been accepted by the Dutch rarities committee (CDNA) for the period 1992-2001 (van der Vliet et al 2002). Following the lumping of 'Baltic Gull' and 'Lesser Black-backed Gull' all records except those referring to birds of known origin were removed from the Dutch list (van der Vliet et al 2004). There are five recoveries of Finnish ringed birds, in April, June, September, October and December (Cottaar 2005, van der Vliet et al 2005, Altenburg et al 2006). There have been several reports of *heuglini* (eg, Bakker 1999) but the identification of this taxon is still very complicated and, so far, no records have been accepted by the CDNA.

Materials and methods

I studied Lesser Black-backed Gulls mainly in the Netherlands, and mainly in the period 1999-2003. Photographs and notes were gathered during field trips to various locations. By far the most important site was the dump near Wijster, Drenthe. The information gathered during these field trips was amended by photographs taken in Finland, France, Israel, Morocco and Portugal. A few 1000s photographs of several 100s



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176 Lesser Black-backed Gull / Kleine Mantelmeeuw *Larus fuscus intermedius*, juvenile, Lauwersoog, Groningen, Netherlands, 14 November 2000 (*Theo Bakker*). Colour-ringed at Lista, Norway. Note that only a few scapulars have been moulted. **177** Lesser Black-backed Gull / Kleine Mantelmeeuw *Larus fuscus*, second calendar-year, Wijster, Drenthe, Netherlands, 22 April 2000 (*Rik Winters*). Note restricted black on tail. **178** Lesser Black-backed Gull / Kleine Mantelmeeuw *Larus fuscus*, second calendar-year, Wijster, Drenthe, Netherlands, 22 April 2000 (*Rik Winters*). Note two distinct types of scapulars. **179** Lesser Black-backed Gull / Kleine Mantelmeeuw *Larus fuscus*, second calendar-year, Wijster, Drenthe, Netherlands, 7 May 2000 (*Rik Winters*). *Fuscus*-type. Both wings show eight new primaries; earliest date for a bird of this age with such a moult pattern.

of immature Lesser Black-backed Gulls were studied for this paper. Field notes were made to describe moult, and a score system was developed to simplify this. More than 35 colour-ringed second and third calendar-year birds were found, of which 17 were photographed. The ringed birds originated from Belgium, Britain, France, the Netherlands and Norway. The ringing data on these birds were used to correlate differences in moult and plumage patterns to geographical origin. Given the low number of ringed birds involved, however, these correlations should be regarded as no more than an indication of what the actual situation may look like.

Based on the ringing data and the features shown, the birds observed at Wijster will mainly have originated from 'intermediate populations', ie, populations breeding on the eastern shores of the North Sea.

Moult

One of the perceived main distinguishing characters between *fuscus* and *graellsii* is their difference in moult timing and the resulting moult patterns. The use of these differences for identification purposes is most pronounced in immatures. Observations and descriptions by Jonsson (1998) and Rauste (1999) emphasized the differences, some of which were already mentioned by Stresemann (1966) and elaborated on the timing of moult in *fuscus*. Adriaens (2002), Gibbins (2004) and Musse et al (2005) already presented some limitations to the use of the moult criteria defined by Jonsson based on observations on continental western European birds.

In general, the moult of Lesser Black-backed Gull can be understood in terms of the sequence of moults described for Western Gull *L. occidentalis* (Howell &



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180 Lesser Black-backed Gull / Kleine Mantelmeeuw *Larus fuscus intermedius*, second calendar-year, Wijster, Drenthe, Netherlands, 3 June 2001 (*Rik Winters*). Colour-ringed at Lista, Norway, in 2000. All visible wing-coverts moulted but primaries juvenile and worn. **181** Lesser Black-backed Gull / Kleine Mantelmeeuw *Larus fuscus*, second calendar-year, Wijster, Drenthe, Netherlands, 8 June 2001 (*Rik Winters*) **182** Lesser Black-backed Gull / Kleine Mantelmeeuw *Larus fuscus intermedius*, second calendar-year, Wijster, Drenthe, Netherlands, 3 June 2001 (*Rik Winters*). Colour-ringed at Lista, Norway, in 2000. Note probably no juvenile feathers retained on back and in wing-coverts; tail completely renewed, but primaries and secondaries retained juvenile (not visible in this photograph). **183** Lesser Black-backed Gull / Kleine Mantelmeeuw *Larus fuscus* and European Herring Gull / Zilvermeeuw *L. argentatus*, Wijster, Drenthe, Netherlands, 10 June 2001 (*Rik Winters*). On second calendar-year Lesser Black-backed Gull, note freshly moulted plain dark grey scapulars contrasting with worn grey-brown ones moulted during autumn/winter.

Corben 2000), as was already suggested by Howell (2001). This means that each moult and plumage cycle in Lesser Black-backed Gull is considered to contain two moults and hence two plumages; the first moult being the one that replaces the juvenile plumage and that is commonly known as the 'post-juvenile moult'.

Howell & Corben (2000) argued for applying the Humphrey & Parkes terminology of moults and plumages (Humphrey & Parkes 1959) when describing moult in general, and in large gulls in particular (see also Dutch Birding 1985, Howell 2001). This approach is in general better suited for describing the plumage development in Lesser Black-backed Gulls than the traditional model in which three moults were supposed to occur during a single year (eg, Grant 1986, Olsen &

Larsson 2004). For reasons of clarity, here the moults of immature Lesser Black-backed Gulls are numbered and not named.

First moult

The first moult comprises the replacement of juvenile feathers during the first autumn, winter and early spring. This moult is most often a partial moult but it is highly variable in extent. It does, however, almost always follow a rather strict sequence of replacement of the feathers.

First calendar-year birds observed in the Netherlands roughly fall into two categories corresponding with the previously described moult strategies of *graellsii* and *fuscus*. Birds from local colonies usually start moulting