

# Identification and ageing of Glaucous-winged Gull and hybrids

Enno B Ebels, Peter Adriaens & Jon R King

**G**laucous-winged Gull *Larus glaucescens* breeds around the northern Pacific, from northern Oregon and Washington, USA, in the east, via Alaska (including the Aleutian and Pribilof Islands), USA, to the Komandorskie Islands and Kamchatka, north-eastern Russia, in the west. The species winters around the northern Pacific, from Baja California, Mexico, to Hokkaido, Japan (Snow & Perrins 1998). It is a rare vagrant in most western states of the USA; it is very rare inland in central states of the USA, as far east as the Great Lakes, and has never been recorded on the American East Coast (cf Sibley 2000). Vagrants have been recorded in Hong Kong, China, and Hawaii, USA (Snow & Perrins 1998). Amazingly, there are two records of Glaucous-winged Gull in the Western Palearctic: a subadult (presumably third-winter) on El Hierro, Canary Islands, on 7-10 February 1992; and an adult at Essaouira, Morocco, on 31 January 1995 (Bakker et al 2001 and references therein). Therefore, its identification is of interest to birders on both sides of the Atlantic Ocean as well as to birders in the Asian-Pacific region where Glaucous-winged Gull has occurred or could occur as a vagrant.

The identification of Glaucous-winged Gull is

treated in several (field) guides and identification videos published during the last two decades (eg, Harrison 1983, Grant 1986, Dunn et al 1997, National Geographic Society 1999, Sibley 2000, Doherty & Oddie 2001). This paper discusses the basic aspects of identification of Glaucous-winged Gull and various hybrids and illustrates the different hybrid types and plumages with photographs; it does not pretend to be all-inclusive. It focuses on structure, plumage and bare parts. Differences in voice and/or behaviour (for instance, long-call posture) are not treated. The paper is based on field studies by Jon King (in Japan and the USA) and Enno Ebels (in Japan), examination by JK of museum skins in various collections, and examination by Peter Adriaens of published and unpublished photographs, including many photographs of spread wings from the National Museum of Natural History (Washington, DC, USA), the Peabody Museum of Natural History (Yale University, New Haven, Connecticut, USA) and the Slater Museum of Natural History (University of Puget Sound, Tacoma, Washington, USA).

The main identification concern when confronted with a possible extralimital Glaucous-winged Gull is not so much the elimination of

279 Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, Seal Rocks, Oregon, USA, April 1982 (René Pop). Sitting on dead Northern Elephant Seal *Mirounga angustirostris*



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**280** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, adult, Westport, Washington, USA, 29 August 1986 (Arnoud B van den Berg). Bird showing typical head shape with small, dark eye high in the head and strong bill. Inner primaries are new, outer two primaries are old and very worn

other species – though aberrant examples of the species may occasionally cause trouble – as the separation of ‘pure’ Glaucous-winged Gull from ‘look-alike’ American West Coast gull hybrids, especially Glaucous-winged x Western Gull *L. occidentalis* hybrids (Bell 1996) and Glaucous-winged x American Herring Gull *L. smithsonianus* hybrids (Merilees 1974, Patten & Weisbrod 1974, Howell & Corben 2000). Such hybrids are perhaps even less likely to occur in the Western Palearctic than Glaucous-winged Gull but they are migratory and have a significant vagrancy potential. Glaucous-winged x Western Gull hybrids are possibly the most likely, since they are common both in British Columbia in summer and in California in winter, and they therefore migrate over quite long distances. Some populations in Washington, USA, consist mostly of hybrids (Sibley 2000). Glaucous-winged Gull also hybridizes with Slaty-backed Gull *L. schistisagus* on the Korjak shore of Kamchatka and hybrids occur in winter in Japan (Firsova & Levada 1982, cf King & Carey 1999). Hybridization occurs with Glaucous Gull *L. hyperboreus* (of the subspecies *L. h. barrovianus*) along the eastern Bering Sea coast of Alaska where

hybrids are locally fairly common (Strang 1977, Cramp 1990). These hybrids are fairly common in some Arctic breeding areas but less numerous further south, where it is possibly overlooked (Sibley 2000; Killian Mullarney in litt). Note that Alaskan Glaucous Gulls are darker and smaller than birds of other populations in North America and in the Palearctic although this may hardly be discernible in the field (Banks 1986, cf Cramp 1990). In North America, a particular type of Glaucous x American Herring Gull hybrid (‘Nelson’s Gulls’) can show a strong resemblance, especially in plumage, to Glaucous-winged Gull; this hybrid was mistakenly listed as a full species (*Larus nelsoni*) by Taverner (1937). In the Western Palearctic, the main pitfall are probably Glaucous (of the subspecies *L. h. hyperboreus*) x European Herring Gull *L. argentatus* hybrids. Mixed breeding of these two taxa occurs extensively in Iceland (Cramp 1990) and (presumed) hybrids have been reported in winter in, for instance, Belgium, Britain (where a mixed pair bred on Unst, Shetland, Scotland, in 1975-79; Pennington 1997), Denmark, Ireland, the Netherlands and Norway.

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**Moult and plumages**

After the views of Howell (2001), Glaucous-winged Gull belongs to a group of medium-sized and large gulls which undergo a moderate-to-extensive post-juvenile moult – including most head- and body-feathers and rarely even some upperwing-coverts – and which do not have a moult to first-summer plumage. This moult pattern is shared with many ‘large white-headed

gulls’ whereas the ‘white-winged gulls’ (Glaucous, Iceland *L glaucoides glaucoides*, Kumlien’s *L g kumlieni* and Thayer’s Gulls *L g thayeri*) have a more limited post-juvenile moult, in extreme cases limited to only a few scapulars and some feathers at the sides of the breast. However, some Glaucous-winged Gulls as well as some European and American Herring Gulls and some Lesser Black-backed Gulls *L graellsii* may also

**281** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, adult, Petaluma, Sonoma County, California, USA, 8 January 1998 (*Jon R King*). Adults with pale iris are rare but regular. While this may be sign of hybrid origin, this bird shows no other obviously atypical features

**282** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, adult, with Western Gull / Californische Meeuw *L occidentalis*, adult (behind), Petaluma, Sonoma County, California, USA, 21 January 1999 (*Jon R King*). Compare colour of bill, legs, primaries, grey upperpart tone and presence of smudged grey on head and neck of Glaucous-winged Gull

**283** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, adult (right), with American Herring Gull / Amerikaanse Zilvermeeuw *L smithsonianus*, probably fifth year (left), Petaluma, Sonoma County, California, USA, 8 January 1998 (*Jon R King*)



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**284** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, adult, Monterey, California, USA, 10 October 1991 (*René Pop*). Note small dark eye and long, slightly drooping, bill

**285** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, adult, Vancouver Island, British Columbia, Canada, September 1998 (*René Pop*). Note small dark eye, typical scalings on head, neck and breast and strong, deep pink legs. Outer primaries are missing



show a more limited post-juvenile moult. In Glaucous-winged Gull, a limited post-juvenile moult may be more regular than in these other three species (Klaus Malling Olsen in litt). The fact that the moult to first-summer plumage is lacking implies that there are actually no 'first-winter' or 'first-summer' plumages in the true sense of the term. The differences between these two 'stages' are due to feather wear and bleaching and not to replacement of feathers. After juvenile plumage, birds enter a long period of 'first-year' moult (from August in their first calendar-year through to May in their second calendar-year). After that, the regular cycle of moult to 'winter plumage' (from May to October-November) and moult to 'summer plumage' (from September to May) starts. Note that moult cycles may overlap in timing. Glaucous-winged Gull is a so-called 'four-year gull' and thus attains its adult plumage in its fifth calendar-year although at this age some traces of the subadult plumage may still be visible (see below). More information on moult in gulls can be found in, for instance, Dwight (1925), Grant (1986), Howell et al (1999), Howell & Corben (2000b) and Howell (2000).

#### Identification of adult Glaucous-winged Gull (plates 280-286)

##### *Size and structure*

Typical Glaucous-winged Gulls are rather large and bulky, with a heavy bill, marked gonydeal angle, heavy head, thick body and short primary and wing projections. The wings are rather broad and slightly more rounded than in most Palearctic large gulls while the outer primaries are rather more curved. In addition, the secondaries are relatively longer than in many other Palearctic large gulls (except Western Gull), resulting in a broad, often rather shortish-looking wing. Hence, when perched, the folded wing often looks broad, with the secondaries and/or the bases to the outer primaries often well visible (sometimes the full bases to as many as four or five outer primaries can easily be seen), and the secondaries often project beyond the greater wing-coverts. Two or three primary-tips extend beyond the tail. Palearctic large gulls normally show a slimmer folded-wing structure (cf Garner & McGeehan 1998). Note however that any Palearctic large gull may, at times, adopt a posture in which it reveals more of its secondaries and/or primary-bases than usual. Nevertheless, this is normally just a temporary function of wing



286 Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, adult, Nosappu Misaki, Hokkaido, Japan, 5 February 1999 (Jon R King). Note extensive white tongue on primaries up to p9 which can be feature of hybrids

carriage rather than a feature of actual wing structure. Prolonged and careful observation will usually reveal the true shape and 'jizz' of the bird. The large heavy head, small dark eye and thick bill often combine to give the bird a rather 'primitive' look; the small eye is positioned 'high in the head', especially in males (Klaus Malling Olsen in litt). Glaucous-winged Gulls are however notoriously variable in structure. Some small (female?) birds may even be structurally similar to Thayer's Gull and others may tend towards American Herring Gull.

##### *Head*

The mottled head-markings (smudges) in adult-winter plumage are unique to Glaucous-winged Gull and its hybrids. The head, neck and upper breast usually appear very mottled (as 'thumb-prints'), with dense dusky-brown-grey smudges which often comprise a more transverse scaly or even barred pattern, quite different from the longitudinal streaking in other large gulls (sometimes forming a hood).

##### *Upperparts and wing*

Glaucous-winged Gulls are cold-grey above, slightly darker than in other large gulls (Kodak grey scale ranging between 4 and 7/8), with pale primaries. There is however some variation. Northern populations are slightly paler than southern ones (Grant 1986, Bell 1996); birds from eastern Asia are slightly darker (Klaus Malling Olsen in litt). The primaries are largely of

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**287** Presumed hybrid Glaucous x European Herring Gull / vermoedelijke hybride Grote Burgemeester x Zilvermeeuw *Larus hyperboreus x argentatus*, adult, probably male, Kálfatjörn, Vatnsleysuströnd, south-western Iceland, June 1999 (Gunnar Thór Hallgrímsson). This bird was paired with normal European Herring Gull and was probably a male as it was larger than its mate. Voice was identical with that of European Herring Gull; Glaucous Gulls have quite different calls. High degree of variation occurs in coloration of primaries and most presumed hybrids in south-western Iceland are very much like European Herring Gull in size and structure (Gunnar Thór Hallgrímsson in litt). Pure Glaucous Gull would be expected to show different structure, paler grey upperparts and more white in primary-tips

the same grey colour but the outer five to seven primaries (usually six) have a slightly darker grey pattern, increasing in extent outwards. P10 (the outermost primary) is largely medium-grey with a white mirror. P9 also may have a subterminal white mirror and, rarely, a small white mirror may be present on p8 (cf Grant 1986, Klaus Malling Olsen in litt). The white subterminal spots on the outer primaries ('pearl drops' or 'string of pearls') are often not very conspicuous – although they can be more obvious from below, in good light. These whitish tongue-tips are usually present on p5-9 but sometimes only on p5-8 or even p5-7. The medium-grey pattern is most visible on the distal halves of the outer primaries, becoming very diffuse on the basal halves of p8-10. It is often difficult to judge the exact extent of medium-grey markings basally on these primaries (especially in the field) since the colour is so similar to the remainder of the

upperwing. Clearly demarcated and rather contrasting dark grey outer vanes on p8-10 are a good indication of a hybrid origin. Note that the colour and pattern of the outer primaries may also be visible on perched birds since their primaries are often exposed (see above). There are usually very long and extensive grey tongues on the inner vanes of the outer primaries, even on p9-10 – where they may join the white mirror(s) – but this is not easily seen, especially in the field, because the outer vanes are only slightly darker than the inner ones. When perched, the white apical spots on the primaries are rather small and the underside of the wing-tip is largely pale. In flight, the underwing is rather pale greyish, with some thin darker subterminal markings on the outer primaries. On the upperwing, the dark grey outer primaries do not contrast with the rest of the wing, creating an almost uniform-looking upperwing from a distance.



**288** Presumed hybrid Glaucous x European Herring Gull / vermoedelijke hybride Grote Burgemeester x Zilvermeeuw *Larus hyperboreus* x *argentatus*, adult, probably female, Garðabær, south-western Iceland, 23 June 2001 (Gunnar Thór Hallgrímsson). This bird was paired with normal European Herring Gull and was probably a female as it was smaller than its mate. High degree of variation occurs in coloration of primaries and most presumed hybrids are very much like European Herring Gull in size and structure. Measurements of this bird strongly suggest European Herring Gull (Gunnar Thór Hallgrímsson in litt). Extremely pale-winged European Herring Gulls may occur in Iceland but total lack of darker grey pigmentation on primary-tips compared with rest of upperwing seems to exclude pure European Herring Gull

#### *Bare parts*

The iris is usually dark – but can have paler flecking – and the eye looks rather small and ‘high in the head’. In summer, the bill is yellow with a red gonys spot. In winter, the bill is often rather dull yellow with an orange gonys spot and sometimes a thin dark subterminal band or mark. The legs are pink to flesh coloured.

#### **Identification of adult hybrids**

Adult Glaucous-winged Gulls can be fairly straightforward to identify but, to confidently establish any identification, it is important to consider the hybrid problem. For illustrations of the most common hybrids, see, for instance, Sibley (2000). First-generation Glaucous-winged Gull hybrids may show the full range of intergradation with the other parent species. They may be of intermediate appearance, especially in mantle colour, but they may also be very similar

to either of the parents. Usually, their hybrid origin is betrayed by the presence of mixed characters. Hybrids (especially Western x Glaucous-winged Gull hybrids) are common on the American West Coast and even second-generation hybrids occur, making the problem even more complex. In addition, the hybrid zone appears to have expanded in the last decade (Bell 1996). Therefore, it is essential to check thoroughly the full range of field characters. Any ‘odd’ feature might indicate a hybrid origin but beware also of intraspecific variation.

*Glaucous-winged* x *Western Gull* (plate 309, 319)  
Adult Glaucous-winged x Western Gull hybrids usually differ from pure Glaucous-winged Gulls in their intermediate characters such as contrasting blackish-grey to greyish-black primaries, darker grey upperparts and a rather dark and broad trailing edge to the underwing. It has been

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**289** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, first calendar-year, Farallon Island, California, USA, 15 October 1997 (*Jon R King*). In fresh juvenile plumage as this bird, Glaucous-winged Gull can strongly resemble same-aged Thayer's Gull *L. glaucooides thayeri* but note structure, especially head and bill shapes, more coarsely marked underparts and scapulars showing less white and obvious dark subterminal marks

**290** Possible hybrid Glaucous-winged x American Herring Gull / Beringmeeuw x Amerikaanse Zilvermeeuw *Larus glaucescens* x *smithsonianus*, presumed first calendar-year, Lake Merritt, Oakland, Alameda County, California, USA, 15 November 1996 (*Jon R King*). Probably, best left unidentified but pink on bill, pattern on wing-coverts, bill and head shapes and relative darkness of primaries suggest this is not pure Glaucous-winged Gull

**291** Hybrid Glaucous-winged x Western Gull / Beringmeeuw x Californische Meeuw *Larus glaucescens* x *occidentalis*, first calendar-year, Mendocino County, California, USA, 27 November 1997 (*Jon R King*). Mainly in juvenile plumage. This bird shows greater affinities to Glaucous-winged Gull than to Western Gull and hence may not be first-generation hybrid. Showing higher proportion of first-winter scapulars than would be expected in November for pure Glaucous-winged Gull but certainly fewer than would be typical of first-winter Western Gull in late November



proven by known crosses between gull species that the greyness of the mantle tends to be intermediate between the parents but that inheritance of primary-tip melanism is probably continuous and dominant to non-pigmented tips. Mantle and primary-tip melanism therefore appear to be under separate genetic control (Bell 1996). Familiarity with the characters, and especially the wing pattern, of Western Gull will be a great help in identifying hybrid characters. Compared with Glaucous-winged Gull, the primary pattern of pure Western Gulls differs as follows: 1 markings on outer primaries pure black; 2 black on outer vanes of p8-10 more extensive, clearly reaching up to or nearly up to primary-coverts (even on p8); 3 grey tongues on inner vanes of p8-10 usually shorter and less extensive; 4 pale tongue-tips thinner (rather more 'crescent shaped') and more often only present on p5-7; and 5 usually only one white mirror (on p10) but occasionally two (p9-10). Any Glaucous-winged type showing a contrasting blackish hue in the otherwise grey primaries and/or a rather dark underside of the folded wing-tip or the remiges in flight is unlikely to be 'pure'. In addition, the grey tongues on p9-10 are often slightly less extensive, and the blackish-grey colour on the outer vanes of p9-10 may be more strongly demarcated and reach clearly up to the primary-coverts. The size and number of pale tongue-tips seem of less help since they can be quite extensive in these hybrids while less prominent in some pure Glaucous-winged Gulls (see above). Apparently, the same applies to the number and size of the white mirrors.

The iris colour is usually not very helpful but a brighter yellow bill may reflect Western Gull influence, this feature not being so usual in pure Glaucous-winged. At the other end of the scale, some birds are quite similar to Western Gull but may be slightly paler mantled and, especially significant, may have the extensive head-smudging of Glaucous-winged Gull (adult Western Gull remains rather white-headed in winter). These hybrids are always bulky, broad winged and heavy billed like both parent species (Sibley 2000).

#### *Glaucous-winged x American Herring Gull*

Adult Glaucous-winged x American Herring Gull hybrids are variable in both plumage and structure and extreme birds can strongly resemble either of the parent species. The body and folded wings may look less bulky but the structure is not always different from pure Glaucous-winged

Gulls although the wing-tips are usually more rounded in Glaucous-winged. Birds are generally larger, bulkier and heavier billed than most Thayer's Gulls but some smaller birds may be indistinguishable from Thayer's Gull (Sibley 2000). Compared with pure Glaucous-winged Gulls, these hybrids have rather darker primaries (with more black) above and sometimes below too (but may still be paler below than in American Herring Gull). In addition, the iris can be quite pale; there may be brown streaking on the head. Compared with Glaucous-winged x Western Gull hybrids, the upperparts are paler grey. As the primaries are somewhat darker above than in Glaucous-winged Gull and the upperparts are rather paler grey, the contrast between these areas can be (much) more pronounced than in pure Glaucous-winged Gulls.

Glaucous-winged x American Herring Gull hybrids show darker primaries than typical adult Glaucous-winged Gulls. The primary pattern is actually somewhat similar to that in eastern American Herring Gulls, with a rather blackish pattern and rather long grey tongues on p5-7(8). However, the outer vanes of p(8)9-10 show a distinct greyish cast and especially the underside of the primaries is much more greyish, not black. The grey tongues on p9-10 are often less extensive and shorter than in pure Glaucous-winged Gulls but may be equally extensive. Many birds have white mirrors on p9-10 although often quite small on p9. The blackish-grey colour on the outer vanes of p9-10 clearly reaches up to the primary-coverts. The size and number of whitish tongue-tips are quite variable and of little help.

#### *Glaucous-winged x Glaucous Gull*

Typical adult Glaucous-winged x Glaucous Gull hybrids have paler primaries; these may be pale grey (paler than the upperparts) or even whitish. The white apical spots may be quite large, the iris may be pale, there may be some brown head-streaking and the body, wing and bill structures can be different too. The grey markings on the outer primaries (if present at all) may be more restricted and may not even reach p6. These hybrids are normally large and large billed (Sibley 2000).

#### *Glaucous-winged x Slaty-backed Gull*

Glaucous-winged x Slaty-backed Gull hybrids are regular in Hokkaido, Japan. The following description is based on observations of these birds (Klaus Malling Olsen in litt). Generally, they show a more rounded head and a weaker

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**292** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, with Slaty-backed Gulls / Kamtsjatkameeuw *L schistisagus*, Hanasaki, Hokkaido, Japan, 6 February 1999 (*Jon R King*). Appears still to be in juvenile plumage. Extremely dark juvenile birds like this occur more frequently in Japan than in California

**293** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, Hanasaki, Hokkaido, Japan, 4 February 1999 (*Jon R King*). Note uniform tail. Even on pure birds, tail and secondaries are often darkest parts visible on upperside of flying immatures

**294** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, Hanasaki, Hokkaido, Japan, 4 February 1999 (*Jon R King*). Compared with bird depicted in plate 292, more typical bird. Note dull pink legs

**295** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, Petaluma, Sonoma County, California, USA, 21 January 1998 (*Jon R King*). Still largely in juvenile plumage. Note limited extent of 'first-winter' feathers and very dark legs

**296** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, with California Gull / Prairiemeeuw *L californicus*, Petaluma, Sonoma County, California, USA, 27 January 1998 (*Jon R King*). Moulting from juvenile to 'first-winter' plumage. Combination of retained and newly moulted first-winter scapulars creates two patterns, with newly grown feathers being uniform grey. Mixed juvenile and first-winter feathers causes blotchy appearance of head and underparts. Bill is already showing some pale on base

**297** Thayer's Gull / Thayers Meeuw *Larus glaucooides thayeri*, second calendar-year, Petaluma, Sonoma County, California, USA, 3 February 1998 (*Jon R King*). Pale juvenile. Compare with Glaucous-winged Gull *L glaucescens* depicted in plate 289

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**298** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, Choshi, Honshu, Japan, 10 February 1999 (*Jon R King*). Markedly worn and faded, in contrast to birds depicted in plates 292 and 294, despite similar date. 'First-winter' feathers appearing on head, neck and flanks; scapulars are uniform grey



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**299** Presumed hybrid Glaucous-winged x American Herring Gull / Beringmeeuw x Amerikaanse Zilvermeeuw *Larus glaucescens x smithsonianus*, second calendar-year, Petaluma, Sonoma County, California, USA, 21 January 1999 (Jon R King). Still mainly in juvenile plumage. Bill probably too large for Thayer's Gull *L. glaucooides thayeri* and showing more pink than is normal for Thayer's Gull in January. Extensive dark bases to greater wing-coverts also favour American Herring Gull but very washed-out plumage suggests Glaucous-winged Gull

**300** Possible Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, Lake Merritt, Oakland, Alameda County, California, USA, 25 February 1997 (Jon R King). Possibly, pale extreme of 'pure' Glaucous-winged Gull but may also be bird with some gene flow from Glaucous Gull *L. hyperboreus*

**301** Presumed hybrid Glaucous-winged x Glaucous Gull / Beringmeeuw x Grote Burgemeester *Larus glaucescens x hyperboreus*, second calendar-year, Petaluma, Sonoma County, California, USA, 8 January 1998 (Jon R King). Mainly in 'first-winter' plumage. Superficially strongly resembling Glaucous Gull but with extensive dark on bill and marked 'milky coffee' wash to primaries and tail

**302** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, Nosappu Misaki, Hokkaido, Japan, 5 February 1999 (Jon R King). More uniformly dark underwing-coverts are typical

**303** Presumed hybrid Glaucous x American Herring Gull / Grote Burgemeester x Amerikaanse Zilvermeeuw *Larus hyperboreus x smithsonianus*, second calendar-year (left), with American Herring Gull (right), Petaluma, Sonoma County, California, USA, 8 January 1999 (Jon R King). Hybrid plumage similar to bird depicted in plate 299 but paler underparts and especially bill shape and pattern suggesting Glaucous Gull

bill than Glaucous-winged Gull. The upperparts are slightly darker (similar to those of 'argentatus' European Herring Gull) and the blackish primary pattern of Slaty-backed Gull is indicated. The winter head-markings may match those of typical Glaucous-winged Gull but with more distinct streaking and spots and frequently a narrow dark eye-mask.

*Glaucous x American Herring Gull*

Adult Glaucous x American Herring Gull hybrids ('Nelson's Gulls') may show some features of Glaucous-winged Gull but generally the primaries will be darker than in Glaucous-winged Gull (due to the dominance of dark primary pigmentation). The upperparts will normally be slightly paler grey than in typical Glaucous-winged Gulls. These hybrids are never as bulky or broad winged as most Glaucous-winged Gulls (Sibley 2000). The iris will normally be pale (as in both

parent species) but this is not totally reliable; some adult hybrids and even some adult Glaucous Gulls and American Herring Gulls observed at Inuvik, Northwest Territories, Canada, in summer 2001 showed darkish eyes (Bruce Mactavish in litt). For photographs of 'Nelson's Gulls' see, for instance, Burke (1995).

**304** Wings of American Herring Gull / Amerikaanse Zilvermeeuw *Larus smithsonianus* (top), presumed hybrid Glaucous-winged x American Herring Gull / Beringmeeuw x Amerikaanse Zilvermeeuw *L. glaucescens x smithsonianus* (middle) and Glaucous-winged Gull / Beringmeeuw (bottom), all second calendar-year, found dead early February 1998 at Petaluma, Sonoma County, California, USA (Jon R King). Note intermediate character of hybrid wing, especially in pattern of greater wing-coverts, overall coloration and distribution of dark on primaries. All specimens retained at California Academy of Science, Los Angeles, Los Angeles County, California, USA



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**305** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, (right), with American Herring Gull / Amerikaanse Zilvermeeuw *L smithsonianus*, subadult, Santa Barbara, California, USA, March 1982 (*René Pop*). Bird in second-winter plumage. Note overall plain-looking plumage and adult-type pale grey mantle-feathers. Head rather small and rounded and bill not very heavy, possibly indicating female

**306** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, Vancouver, British Columbia, Canada, 15 June 2000 (*Arnoud B van den Berg*). Relatively dark bird. Two generations of scapulars are visible



**307** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second-calendar year, Vancouver, British Columbia, Canada, 15 June 2000 (*Arnoud B van den Berg*). Pale individual in 'first-summer plumage', with heavily worn and bleached wing feathers





308 Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, Westport, Washington, USA, 29 August 1986 (Arnoud B van den Berg). Note very abraded plumage, typical for many one year old birds in summer

*Glaucous x European Herring Gull* (plates 287-288)  
Many features typical of Glaucous-winged Gull could also be shown by Glaucous x European Herring Gull hybrids which are regular in Iceland – the situation in Iceland is clouded by the alleged presence of European Herring Gulls with much reduced melanism in the wing-tips (cf Snell 1991, 1993). However, such hybrids would differ from Glaucous-winged Gull by their pale iris (both parent species show a pale yellowish iris) and would probably show a slightly different, less drooping, bill shape. The overall shape would be less bulky than in Glaucous-winged Gull. The mantle colour of such a hybrid would probably be slightly paler than in Glaucous-winged Gull, especially in birds closer to Glaucous Gull in upperpart tone. Any hybrid would show upperparts intermediate in tone between ‘*argenteus*’ European Herring Gull (the type breeding in Iceland) and Glaucous Gull. Similarly, the primary pattern can be expected to be intermediate in some respects as well (for instance, dark markings more restricted, not reaching p5 or even p6). In winter plumage, the heavy brown streaking on head and neck (present in both parent species) will in most cases differ from the brownish

smudging typical of Glaucous-winged Gull. Presumed hybrids from south-western Iceland tend to resemble European Herring Gull, apart from the very pale grey primaries. Hybrids from north-western Iceland, where Glaucous Gulls are much more common, could conceivably show more resemblance to Glaucous Gull (Gunnar Thór Hallgrímsson in litt). For references and discussion of extremely pale ‘*argenteus*’ European Herring Gulls and hybrids, see Ingólfsson (1970, 1993), Snell (1991, 1993), Dubois (1997) and Garner & McGeehan (1997). [Note that in Dubois (1997) the captions to the plates on p 275 are transposed.]

#### Identification of immature Glaucous-winged Gull and hybrids

The identification of immature Glaucous-winged Gulls and similar-looking hybrids can, at times, be even more challenging and problematic than the identification of their adult counterparts. An improved understanding of the full range of immature and sub-adult plumages may help in the detection and identification of such birds in Europe, or elsewhere where the species is a potential vagrant. Note that one of the Western

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**309** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, third calendar-year (centre), with hybrid Glaucous-winged x Western Gull / Beringmeeuw x Californische Meeuw *L. glaucescens* x *occidentalis*, adult (left) and Western Gulls (second calendar-year, behind, adult, right, and third calendar-year, far right), Petaluma, Sonoma County, California, USA, 12 January 1998 (Jon R King). Note intermediate grey upperparts and dark grey (not black) primaries of hybrid

Palaearctic records (on El Hierro, Canary Islands) concerned a bird presumed to be in third-winter plumage. Structural features are very much comparable at all ages and may therefore be studied in immatures as well to learn the distinctive characters of Glaucous-winged Gull of any age. The text below summarizes the main characters of immature plumages from juvenile to third-summer plumage, and is based on Harrison (1983), Snow & Perrins (1998) and Sibley (2000). The accompanying photographs illustrate most plumage stages of pure Glaucous-winged Gulls and several hybrid-types which may cause confusion. The principal identification points are discussed in the captions.

*Juvenile plumage* (plates 289-291)

Juvenile Glaucous-winged Gulls are generally medium-cold-grey-brown. Although the darkness of the plumage is variable, birds are always rather uniformly coloured, without obvious patterning. The head is slightly paler grey-brown; the lores and ear-coverts are darker and create a slightly darker uniform 'eye-patch'. The hindneck

and sides of the neck are diffusely streaked with whitish. The scapulars are normally paler than in juvenile Western Gull, and the pattern is usually one of two types: either plain brown with slightly darker subterminal markings and whitish edges ('holly-leaf' pattern, reminiscent of juvenile Thayer's Gull), including birds with pale restricted to buffish spots along the edges of the mantle-feathers and scapulars, or plain brown with a small paler mark or bar in the centre. The rump and uppertail-coverts are slightly paler and distinctly barred. The tail is uniform brown-grey, sometimes with the base to the outer rectrices faintly mottled and the outer web of t6 with a few pale spots. The tail is generally even more uniform than in some first-year American Herring Gulls, which may show more pale mottling on the bases of the outer feathers. The underparts are uniform cold-grey-brown and indistinctly mottled. The undertail-coverts are barred with grey-brown and white, quite sharply demarcated from the uniformly brown belly (the dark bars are often broader than the pale ones). Quite often, the upper mantle looks just as dark and uniform as

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**310** Possible hybrid Glaucous-winged x Glaucous Gull / Beringmeeuw x Grote Burgemeester *Larus glaucescens* x *hyperboreus*, third calendar-year, Petaluma, Sonoma County, California, USA, 25 February 1998 (Jon R King). Overall pallid appearance suggesting Glaucous Gull but bill pattern intermediate and new grey upperpart-feathers typical of Glaucous-winged Gull

**311** Hybrid Glaucous-winged x Western Gull / Beringmeeuw x Californische Meeuw *Larus glaucescens* x *occidentalis*, third calendar-year (left), with Glaucous-winged Gull, third calendar-year (right), Petaluma, Sonoma County, California, USA, 21 January 1999 (Jon R King). Compared with pure bird, this hybrid shows darker primaries, thicker bill, darker and heavier smudging on head and underparts and more prominent patterning on wing-coverts and secondary-tips, all of which are features of Western Gull. Note however shade of grey of upperparts typical of Glaucous-winged Gull

**312** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, third calendar-year, Petaluma, Sonoma County, California, USA, 8 January 1998 (Jon R King). Uniform, finely speckled wing-coverts and secondaries are typical of this age (second-winter plumage). Some inner median wing-coverts are usually grey by January

**313** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, second calendar-year, Palomarin Beach, California, USA, 5 November 1996 (Jon R King). Same age class (second-winter plumage) as bird depicted in plate 312. Note typically dark tail

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314 Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, third calendar-year, Nosappu Misaki, Hokkaido, Japan, 5 February 1999 (Jon R King). Pale underwing reminiscent of Glaucous Gull *L. hyperboreus* is typical

the lowerbreast and belly, adding to the uniform appearance. The upperwing has the same colour and pattern as the upperparts; primaries and secondaries are pale brown-grey (often about the same colour as the tertials) with an indistinct dark subterminal tip and a pale (whitish) fringe. The tertials and greater wing-coverts have a solid-brown but not strongly contrasting centre and a rather narrow pale fringe. Quite often, there is some pale 'marbling' at the tips of these feathers. The underwing is pale brown-grey, streaked darker on the wing-coverts and axillaries. When perched, the underside of the folded wing-tip is largely pale. The bill is uniform black and the iris is dark. The legs and feet vary from brownish or rather dark pinkish to almost bright bubblegum-pink; this bright colour was, for instance, frequently seen in birds wintering in Japan (Klaus Malling Olsen in litt).

Overall, juvenile Glaucous-winged Gull resembles juvenile Thayer's Gull but most are easily distinguished by obvious differences in size and structure. Thayer's is smaller and neater,



315 Hybrid Glaucous-winged x Western Gull / Beringmeeuw x Californische Meeuw *Larus glaucescens* x *occidentalis*, second calendar-year, Point Reyes, Marin County, California, USA, 12 November 1996 (Jon R King). Most of plumage is closer to Western Gull but note pale mantle and scapulars more close to Glaucous-winged Gull

with a more attenuated rear end (due to proportionately longer wings), a rounder head and a relatively 'large' eye – creating a more gentle look compared with the 'pig-eyed' expression of Glaucous-winged caused by its small eye that is set back and higher. Additional differences which may help identify difficult individuals (large Thayer's or small Glaucous-winged) are the colour of the primaries (normally distinctly darker than the tertials in Thayer's, at least in typical, fresh birds), and the overall 'plainer' appearance of Glaucous-winged due to the generally less-patterned scapulars, greater coverts, primaries and tertials. In flight, Glaucous-winged Gull lacks the two-toned pattern on the primaries (pale on the inner webs, dark on the outer webs; the 'Venetian blinds') since the outer vanes are hardly darker than the inner ones (cf Garner & McGeehan 1998, see also Lonergan 1999).

Juvenile Glaucous-winged Gulls are generally darker than juvenile Glaucous Gulls and easily separated from Glaucous Gull by their all-dark bill and brown pale-fringed primaries. In late winter, they become paler and show more resemblance to Glaucous Gull. Western Gulls, on the other hand, are darker and more strongly patterned, especially on upperparts and upperwing, than juvenile Glaucous-winged Gull. The primary-tips are very dark brown to black (normally lacking an obvious pale fringe) and the underwing is darker grey, especially on the wing-coverts.

*Identification and ageing of Glaucous-winged Gull and hybrids*

Hybrids can usually be identified by carefully noting the coloration of the secondaries and primaries (darker in hybrids with Western Gull), the coloration of the bill (pale based in hybrids with Glaucous Gull) and overall coloration (darker in hybrids with Western Gull). Western Gulls moult earlier (late autumn/early winter) than Glaucous-winged Gull (mid-winter) and hybrids with Western Gull are likely to share this earlier moult.

Just like the adults, other ages of hybrids will reveal their identity by showing a varying degree of mixed characters of both parents. Thus, juvenile Glaucous-winged x Western Gull hybrids may show darker scapulars, lacking the darker subterminal edge or the paler internal mark of Glaucous-winged Gull. The wing-coverts and the upper mantle may be more regularly barred (this is however not so on the tertials since juvenile Western Gulls are also quite uniform there) and primaries may be darker and more contrasting.

The same characters can roughly be used to identify juvenile Glaucous-winged x American Herring Gull hybrids as well but in addition the tertials may also have a little barring near the tips, the underside of the primaries may show more prominent and more extensive dark tips, the head may be less smudgy and more streaked and the basal half or even two-thirds of the bill may begin to turn pinkish as early as in their first winter. Structure may also be an important clue. Note that these hybrids can be very similar to Thayer's Gull (in all ages).

Juvenile Glaucous-winged x Glaucous Gull hybrids will usually be paler than pure Glaucous-winged Gulls, sometimes nearly as pale as Glaucous Gull, with largely whitish primaries. The wing coverts, tertials and scapulars may be rather regularly and crisply barred. The bill may be paler (quite pink basally) and a white eye-ring may be slightly more obvious than in Glaucous-winged Gull. The tail may lack the uniformly dark appearance, having a pale base to the outer rectrices. Some birds are quite similar to Glaucous Gull but show a darker bill. Note that structure is particularly important to tell such birds from Kumlien's Gull.

Juvenile Glaucous x American Herring Gull hybrids will as a rule neither share the typical structure of Glaucous-winged Gull nor its rather dark and very uniform appearance. They can be expected to have some pink on the bill base. Many hybrids even show the typical bi-coloured bill of juvenile Glaucous Gull. The secondaries, outer primaries and tail are mostly darker than in Glaucous-winged Gull.

*'First-winter/first-summer' plumage* (plates 279, 292-296, 298-304, 306, 308)

Later in their first year, juveniles become paler by bleaching and wear and can look quite abraded. First-winter feathers start to appear on mantle and scapulars and are either washed-out, dirty-brownish-grey or greyish-white with a rather anchor-shaped brown pattern. They are acquired in late winter (from December). The primaries are pale grey-brown, much the same shade as the body. The bill remains all-black, sometimes with a very small patch of pink at the very base of the lower mandible. Identification of hybrids is based on much the same points as mentioned for juveniles but the colour of the new upperpart-feathers may give an additional clue. First-year Glaucous-winged x Western Gull hybrids, for example, may sometimes show scapulars that are more similar to Western Gull, being rather dark greyish with broad dark shaft-streaks ('arrowheads').

In the following summer (when one year old), the bill becomes pale based with extensive dusky-black, especially near the tip. It is not unusual, however, for Glaucous-winged Gull to retain an all-dark bill well into the second winter. The whole plumage is even paler than the first-winter plumage, appearing silvery-grey or buff with stronger brownish mottling on the wing-coverts. The primaries can become almost white. The plumage can become extremely ragged and worn. Clearly, such birds may present huge problems with regards to their separation from Glaucous-winged x Glaucous Gull hybrids, pale (worn) Thayer's and Kumlien's Gulls. However, newly grown feathers (scapulars and/or wing-coverts) are often rather dark brown, contrasting with the rest of the plumage. Hybrids with Western Gull tend to be darker, especially on the primaries. The rump may have a slightly whiter background colour (as in first-year Western Gull) and may contrast more with the tail. From this age, hybrids with Western, American Herring and Glaucous Gulls may start to show a pale iris whereas pure Glaucous-winged Gulls remain dark eyed. The bill colour may also be different. First-year Western Gulls often acquire a rather prominent pink base to the lower mandible during their first winter, so hybrids may also show this. Some first-year Glaucous-winged x Western Gull hybrids may be very similar to faded and worn 'first-summer' Western Gulls.

The identification of 'first-winter' Glaucous-winged Gull and separation from Thayer's Gull was discussed by Kok & van Duivendijk (1997); see also Kaufman (1990) and Garner &

### *Identification and ageing of Glaucous-winged Gull and hybrids*

McGeehan (1998) who discussed the differences between Thayer's and Glaucous-winged Gulls and Glaucous-winged x Western Gull hybrids.

#### *Second-winter plumage* (plates 305, 309-315)

Second-winter plumage resembles 'first-winter/first-summer' plumage. The plumage often looks quite retarded, differing from first-year birds only in more rounded primary-tips and even more uniformly dark wing-coverts and tertials (sometimes completely lacking any pale marbling). The head is paler than in first-summer and is mottled with brown. The mantle varies between being uniform grey as in adult and having a mixture of fresh grey and worn brown feathers. The scapulars, wing-coverts and tertials are generally uniform muddy brown with inconspicuous pale fringes to the greater coverts and tertials, while some barring is often retained on the rump and uppertail-coverts. Sometimes some uniformly grey wing-coverts and/or tertials are present as well. The underparts become paler, especially on the upperbreast; the pattern is more 'blotchy' than in first-summer plumage. The tail becomes slightly whiter on the base and at the sides. The iris remains dark. The bill is dark with extensive pale on the base and at the tip; typically the central part of the bill appears dark (Klaus Malling Olsen in litt).

Identification of second-year hybrids is based on much the same set of characters as for first-year birds but the colour of the new adult-like (third-generation) scapulars may present an additional character.

#### *Second-summer plumage* (plate 307)

Second-summer plumage resembles second-winter plumage but the bill becomes predominantly pale with dark subterminal markings and a pink or whitish tip. The underparts become almost white. The remiges and rectrices are retained from the second-winter plumage and become paler and abraded. All mantle-feathers and scapulars may be moulted into adult-like feathers, creating a uniformly grey saddle.

#### *Third-winter plumage* (plates 316-317, 319)

Third-winter plumage may recall adult plumage and thus strongly differ from the previous plumage stages. Identification can in such cases be largely based on the same characters that are used to identify adults. The bill is yellowish with dusky subterminal markings; this pattern easily gives away the subadult age. The head is white with strong brown mottling, especially on the nape. The upperparts are pale grey as in adults but

may show some traces of brown; the rump is white. The underparts are white but can be clouded with brown-grey on breast and belly, reaching further down than in adults. The upperwing resembles that of adults but the primaries are slightly browner with smaller white apical spots (mirror often lacking on the outer primary (p10); in other cases the mirror is smaller and less clearly set off than in adults). The inner secondaries may be faintly browner. The tail is mostly white with grey freckles on the innermost rectrices. Other birds show a more retarded plumage, with still much brown in the wing-coverts and a lot of black on tail and bill. Such birds differ from second-year birds by their rather uniformly grey secondaries with a (very) broad white tip and medium-grey rather than brown primaries with a small white primary-tip.

#### *Third-summer plumage*

Third-summer plumage is almost indistinguishable from adult plumage because the bill becomes brighter yellow and the dark subterminal markings disappear. The head and underparts may be white as in adults and any brown in the upperparts and wing may have disappeared. Other birds will show traces of brown, for instance, on the wing-coverts and in the tail.

#### *Fourth-winter and fourth-summer plumage* (plate 318)

Birds may occasionally still show signs of subadult plumage (such as dark markings on the bill in summer, brownish coloration in the wing, reduced white on the primary-tips) in their fourth and fifth calendar-years.

### **Glaucous-winged Gulls and hybrids on internet**

Gulls are popular on birding sites on the internet and several sites hold large collections of photographs of Glaucous-winged Gull and hybrids, often with useful comments on identification. Some of the most complete and up-to-date sites are:

[www.martinreid.com/gullinx.htm](http://www.martinreid.com/gullinx.htm)  
[www.bway.net/~lewis/birds/gulls.html](http://www.bway.net/~lewis/birds/gulls.html)  
[www.yukonweb.com/community/ybc/gullery.html](http://www.yukonweb.com/community/ybc/gullery.html)  
[www15.freeweb.ne.jp/animal/larus/gullidentifi\\_.htm](http://www15.freeweb.ne.jp/animal/larus/gullidentifi_.htm)  
[www.geocities.com/RainForest/Canopy/6181/gulls.htm](http://www.geocities.com/RainForest/Canopy/6181/gulls.htm)  
[www.ups.edu/biology/museum/gullwings2.html](http://www.ups.edu/biology/museum/gullwings2.html)

Two sites with photographs of hybrids American Herring x Glaucous Gull ('Nelson's Gull') are:

[www.ns.net/~BruWebb/HybridGulls.htm](http://www.ns.net/~BruWebb/HybridGulls.htm)  
[www.ctbirding.org/nelson's\\_gull\\_images.htm#NelsonsGullPage](http://www.ctbirding.org/nelson's_gull_images.htm#NelsonsGullPage)

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Photographs of (presumed) hybrids Glaucous x European Herring Gull can be found at:

<http://www.zoo.uib.no/~falken/gull/artsindex.htm>

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#### Samenvatting

HERKENNING EN LEEFTIJDSEBEPALING VAN BERINGMEEUW EN HYBRIDEN Beringmeeuw *Larus glaucescens* broedt aan de westkust van Noord-Amerika en ook aan de oostkust van Noord-Azië. Vogels overwinteren in meer zuidelijke streken aan weerszijden van de noordelijke Grote Oceaan. Dwaalgasten zijn onder andere vastgesteld in staten in het westen en midden van de VS maar (nog) nooit aan de oostkust. Opmerkelijk zijn de twee gevallen uit het West-Palearticische gebied: op El Hierro, Canarische Eilanden, op 7-10 februari 1992 en bij

Essaouira, Marokko, op 31 januari 1995. In de broedgebieden hybridiseert Beringmeeuw op grote schaal, met name met Californische Meeuw *L. occidentalis* en Amerikaanse Zilvermeeuw *L. smithsonianus*. Verder is hybridisatie bekend met Grote Burgemeester *L. hyperboreus* en Kamtsjatkameeuw *L. schistisagus*. De determinatie van Beringmeeuw wordt door het bestaan van deze hybriden vaak sterk bemoeilijkt. Daarnaast kunnen ook hybriden van Grote Burgemeester met respectievelijk Amerikaanse Zilvermeeuw ('Nelsons Meeuw') en Europese Zilvermeeuw *L. argentatus* voor verwarring zorgen. De laatste hybride is algemeen in IJsland en is in verschillende Europese landen vastgesteld.

Omdat gebleken is dat bij de meeste meeuwen het 'eerste-winterkleed' en 'eerste-zomerkleed' in feite betrekking hebben op één langzaam doorruiend kleed, zijn deze kleden in dit artikel in terminologie samengevoegd. Na de eerste zomer begint de bekende cyclus van winter- en zomerkleed. In het vierde of vijfde levensjaar bereiken Beringmeeuwen het adulte kleed. Aan de hand van een uitgebreide serie foto's worden de verschillende kleden geïllustreerd; in sommige gevallen (met name bij hybriden) wordt aangegeven dat de determinatie of leeftijdsbepaling niet 100% zeker is. In de bijschriften worden de belangrijkste kenmerken samengevat zoals die op iedere foto te zien zijn. Om verwarring te voorkomen zijn in de onderschriften alle leeftijden in kalenderjaren vermeld.

*Adulte Beringmeeuw* Belangrijkste kenmerken van adulte Beringmeeuwen zijn een fors postuur met brede en relatief korte vleugels, grote kop en lange, zware snavel. De iris is donker en het oog is relatief klein en

**316** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, fourth calendar-year, Petaluma, Sonoma County, California, USA, 8 January 1998 (*Jon R King*). Primary-markings are slightly browner-grey than on adult and white tips are smaller. Visible tertials and some wing-coverts show brownish wash. Size of grey tail-band is very variable in third winter, ranging from absent to extensive. Bill is still showing large black 'anchor' pattern



**317** Probable hybrid Glaucous-winged x Western Gull / Beringmeeuw x Californische Meeuw *Larus glaucescens x occidentalis*, third calendar-year, Mendocino County, California, USA, 28 November 1997 (*Jon R King*). Visible primaries probably too dark for pure Glaucous-winged Gull and dark dense head- and neck-smudging suggests Western Gull



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**318** Glaucous-winged Gull / Beringmeeuw *Larus glaucescens*, probably fifth calendar-year, Petaluma, Sonoma County, California, USA, 5 March 1999 (*Jon R King*). As adult but with reduced white in primaries and with large black bill-markings

**319** Presumed hybrid Glaucous-winged x Western Gull / vermoedelijke hybride Beringmeeuw x Californische Meeuw *Larus glaucescens* x *occidentalis*, third calendar-year, Portland, Oregon, USA, October 1991 (*René Pop*). Note very dark grey primary-tips and dark mantle, probably too dark for Glaucous-winged Gull; extensive scaling on head and breast and dark bill indicative of Glaucous-winged parentage. Small white tips on primaries, dull pinkish legs and dark bill point towards third-winter plumage; adult would show more white in wing, as well as yellow bill and brighter legs





320 mystery gull / raadselmeeuw *Larus*, immature, Telegraph Cove, Vancouver, British Columbia, Canada, July 1994 (René Pop). Very difficult bird, presumably in second-summer plumage. Extremely pale plumage, including all-white wing tips, indicate Glaucous Gull or Kumlien's/Thayer's Gull *L glaucooides kumlieni/thayeri*, or leucistic plumage of these or other gull species. Pale plumage and structural features could indicate Glaucous x American Herring Gull hybrid *L hyperboreus x smithsonianus*; rounded head, rather slender bill and long wings fit American Herring Gull better than Glaucous. Strongly marked mantle feathers do not fit Glaucous or Kumlien's

bevindt zich 'hoog' in de kop. De poten zijn bruin-rose tot diep rose. De kleur van de bovendelen en vleugel is middelgrijs en de handpentekening is grijs met wit, vrijwel gelijk in grijs tint aan de bovendelen en rest van de vleugel. Hierdoor houdt het patroon op de vleugeltop het midden tussen de 'witvleugelige' burgemeesters en de zwart-wit tekening van veel andere grote meeuwen (herinnerend aan Kumliens Meeuw *L glaucooides kumlieni*). In winterkleed vertoont Beringmeeuw een karakteristiek patroon van grijsbruine 'golflintjes' op de kop, hals en (soms) zijborst, als afdrucken van een duim. Deze tekening verschilt van de bruine lengtestreping die veel andere grote meeuwensoorten in de winter vertonen en is diagnostisch voor Beringmeeuw en komt ook vaak voor bij hybriden van Beringmeeuw met andere soorten.

*Adulte hybriden* De belangrijkste verschillen met zuivere Beringmeeuwen van de verschillende types hybriden in adult kleed zijn te vinden in de kleur en exacte tekening van de vleugelpunt, kleur en positie van het oog en structurele kenmerken als grootte, kopvorm, vleugellengte en snavelvorm. Meestal vertonen hybriden kenmerken die intermediair zijn tussen die van beide oudersoorten maar soms kan een hybride

zeer sterk op een van beide oudersoorten lijken. Hybriden waar Beringmeeuw niet een van de oudersoorten is maar die wel sterk op deze soort kunnen lijken zijn hybriden van Grote Burgemeester met Amerikaanse of Europese Zilvermeeuw. Ook bij (het uitsluiten van) deze hybriden is het zaak om vooral goed te letten op structurele kenmerken, snavelvorm en -tekening, iris-kleur en exacte vleugeltekening.

*Onvolwassen Beringmeeuwen en hybriden* Voor veel van de onvolwassen kleden is nog onvoldoende bekend hoe hybriden van zuivere vogels onderscheiden kunnen worden. De meest uitvoerige beschrijving wordt gegeven van het juveniele kleed, dat relatief lang (tot ver in het tweede kalenderjaar) behouden kan worden en erg variabel is (van zeer licht tot redelijk donker). In dit kleed is Beringmeeuw relatief uniform grijsbruin getekend met bleek grijsbruine en lichtgerande handpenteoppen. Het juveniele verenkleed doet het meest denken aan het overeenkomstige kleed van Thayers Meeuw *L g thayeri*, die in de meeste gevallen echter duidelijk van Beringmeeuw verschilt in structurele kenmerken. Vanaf het eerste najaar tot aan de zomer doorlopen vogels het 'eerste-winter/eerste-zomerkleed'. Dit kleed wordt door sleet en bleking van

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veren erg licht, soms tot bijna witachtig. In hun tweede najaar ruïen vogels naar het tweede-winterkleed, min of meer continu overgaand in het volgende voorjaar naar het tweede-zomerkleed. In het derde-winterkleed beginnen vogels sterk op adulte vogels te lijken met een (overwegend) uniform grijze mantel en grotendeels ongetekende grijze bovenzvleugels. De snavel is meestal niet meer overwegend donker zoals bij jongere vogels maar geel met meer of minder donkere vlekking. Vanaf het derde-zomerkleed zijn vogels vaak nauwelijks meer te onderscheiden van adulte, behalve door wat donker op de snavel, wat 'verdwaalde' bruine tekening in het verenkleed en de kleinere witte handpentoppen vergeleken met adulte vogels.

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*Enno B Ebels, Joseph Haydnlaan 4, 3533 AE Utrecht, Netherlands (ebels@wxs.nl)*  
*Peter Adriaens, Keuzemeers 23, 9031 Drongen, Belgium (peter.adriaens@kender-thijssen.be)*  
*Jon R King, Point Reyes Bird Observatory, 2707 D Street, Sacramento, CA 95816, USA*  
*(king@prbo.org)*