

Status of the Iceland Gull at the Yolo County Central Landfill

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The Iceland Gull (*Larus glaucooides*) has a peculiar status at the Yolo County Central Landfill and vicinity. Individuals seem to occur regularly, are reported annually, and yet only four have ever been accepted by the California Bird Records Committee (CBRC). Despite the small number of official records, this still makes the site the leading location for Iceland Gull in the state.

This paper provides an overview of gulls at the landfill, reviews the taxonomy of the Iceland Gull, recounts the history of the CBRC with regard to the species, examines the reports of this species from the landfill, and concludes with advice to birders on documenting the Iceland Gull.

GULLS AT THE YOLO COUNTY CENTRAL LANDFILL

The Yolo County Central Landfill, located three miles northeast of Davis, California, hosts 5,000 to 10,000 gulls daily between November and March each winter. They come to feed on garbage during the day, particularly in the morning, and roost and bathe nearby throughout the day. Around dusk, they fly off to the east, presumably to spend the night on the water in the Yolo Bypass or possibly at Folsom Lake. While access to the landfill is restricted, birders may view the gulls from outside the fence or when gulls are roosting at nearby agricultural fields or at the adjacent Davis Wastewater Treatment Plant. Because of the open terrain, large water bodies, and access limitations, most of the gulls present are often too far away for identification or study. Despite this, birders typically report at least five or more species daily. Regularly occurring species (in order of decreasing abundance), with the numbers one can expect to find on a given winter day, are:

- California Gull (*L. californicus*): thousands
- Herring Gull (*L. argentatus smithsonianus*): thousands
- Thayer's Gull (*L. thayeri*): hundreds (one of the largest concentrations in the state)
- Glaucous-winged Gull (*L. glaucescens*): hundreds
- Ring-billed Gull (*L. delawarensis*): tens
- Western Gull (*L. occidentalis*): zero to four
- Glaucous Gull (*L. hyperboreus*): zero to four

Other gulls species documented there include:

- Mew Gull (*L. canus brachyrhynchus*): lone individuals recorded, but not annually

- Lesser Black-backed Gull (*L. graellsii*): six records accepted by CBRC
- Iceland Gull (*L. glaucooides*): four records accepted by CBRC
- Slaty-backed Gull (*L. schistasagus*): one record accepted by CBRC (two in recirculation)

Additionally, the Vega Gull (*L. argentatus vegae*), the Siberian subspecies of the Herring Gull, has been reported several times.

ICELAND GULL TAXONOMY

Any examination of Iceland Gull records inevitably begins with a review of the species' taxonomic status. Its taxonomy has been wrapped in uncertainty and debate for decades, primarily with regard to its relationship with Thayer's Gull. Currently, the Iceland Gull is considered to consist of two subspecies: *L.g.glaucooides* and *L.g.kumlieni*. Together with Thayer's Gull, the three form a cline from west to east, the larger and darker *thayeri* in the west, smaller and paler *glaucooides* in the east, and the intermediate plumaged *kumlieni* in the center.

Thayer's Gulls breed in central Canada mostly above the Arctic Circle (including northern Baffin Island) and winter primarily along the Pacific coast of North America. They are the most Arctic of these forms, nesting as far north as 80 degrees north latitude. Indeed, the only *Larus* species that breeds further north than Thayer's is Glaucous Gull. The nominate *glaucooides* breed primarily in southern Greenland, mostly below the Arctic Circle, and winter in Greenland and Iceland. *L. g. kumlieni*, between the other two, breed on southern Baffin Island and winter primarily along the Atlantic coast of North America. Because *kumlieni* is highly variable, the cline between the three forms appears to be continuous (McGowan and Kitchener 2001). Weir et al. (2000) make a convincing case that *thayeri* have expanded their range into that of *glaucooides*, thus creating the hybrid swarm *kumlieni*, which appears to be increasing.

While their taxonomic consideration has a long history, there have been three predominant ways to view them in recent years (see Weir et al. 2000 and McGowan and Kitchener 2001).

- 1) One species: *thayeri*, *kumlieni*, and *glaucooides* are all lumped as Iceland Gull.
- 2) Two species: *thayeri* is Thayer's Gull; *kumlieni* and *glaucooides* are lumped as Iceland Gull (Figure 1).
- 3) Two species with a hybrid swarm: *thayeri* is Thayer's Gull; *glaucooides* is Iceland Gull; *kumlieni* is a Thayer's x Iceland Gull hybrid known as "Kumlien's Gull" (Figure 2).

The current official position of the American Ornithological Union, and thus of the American Birding Association and the CBRC, is #2 (Figure 1).

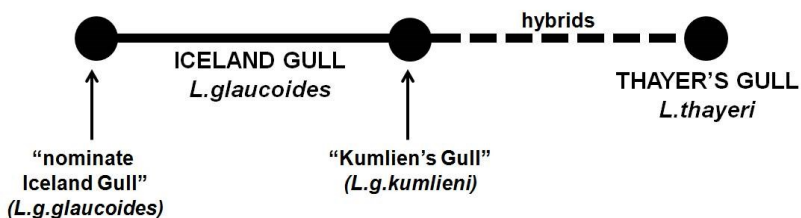


Figure 1: The current taxonomic relationship of Iceland Gull and Thayer's Gull.

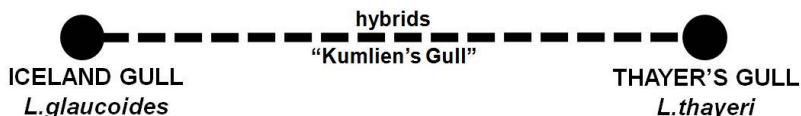


Figure 2. An Alternative view of Iceland-Thayer's Gull taxonomy.

TREATMENT BY THE CALIFORNIA BIRD RECORDS COMMITTEE

Because the CBRC uses the official taxonomic status of the AOU, it is in the difficult position of needing to draw a line on this continuum in order to distinguish between the Iceland Gull, a species on their review list, and the Thayer's Gull.

As reports of Iceland Gull increased in the state in the 1990s, the CBRC chose at first to refrain from reviewing them. In their own words, "The Committee tabled all records of this species at its 1994 meeting (Heindel and Garrett 1995), anticipating a taxonomic change in which the Thayer's Gull would be lumped with the Iceland Gull. However, the expected taxonomic change did not occur, and the AOU (1998) continues to recognize the Iceland Gull as a separate species. Thus, at its 1998 meeting, the Committee decided to resume review of all submitted Iceland Gull records" (Rottenborn and Morlan 2000).

It was not until 2000 that the CBRC accepted the first Iceland Gull record for the state. They actually accepted two: an adult found at Bodega Harbor in 1984 and a juvenile from San Diego County in 1986. They noted, "Perhaps not surprisingly, both of these birds were at the pale end of the spectrum (i.e., more like nominate *glaucoides* than the expected Kumlien's Gull, *L. g. kumlieni*, of North America); birds closer in appearance to *kumlieni* (and thus pale Thayer's Gulls, *L. thayeri*, as well) have not fared well in the CBRC review process" (Erickson and Hamilton 2001).

By 2008, the CBRC had accepted five more records but rejected 25, noting that "this species continues to have easily one of the lowest acceptance rates of any reviewed" (Pike and Compton 2010). Over the years,

they have listed several reasons why “the committee continues to handle records of this species with extreme caution” (Pyle et al. 2011).

The reasons include:

- “taxonomic uncertainties” (Pyle et al. 2011).
- “the known winter range of the Iceland Gull does not seem to make the species a good candidate to reach California with frequency” (Pyle et al. 2011).
- “the poorly understood identification criteria in the Iceland–Thayer’s complex” (Heindel and Garrett 2008); specifically, they cite a lack of knowledge regarding “the range of variation within *L. thayeri* and *L. g. kumlieni*” (Rottenborn and Morlan 2000) and a desire to rule out “the possibility of a hybrid or intergrade between Kumlien’s Iceland Gull (*L. g. kumlieni*) and Thayer’s Gull”.

Given the taxonomic uncertainty and lack of identification criteria, the CBRC has chosen to accept only the most obvious Iceland Gulls based on the taxonomic logic that *kumlieni* is a subspecies of Iceland Gull and not a hybrid swarm between *glaucoides* and *thayeri*. To this end, they logically draw the line far from Thayer’s on the continuum.

The CBRC has acknowledged that “the Iceland Gull presents a problem perhaps as complex as any this committee ponders” (Iliff et al. 2007) and that “reports of the Iceland Gull continue to bedevil committee members, who, in general, take a conservative approach to this species, a situation likely to continue until identification criteria are better understood and taxonomic issues become clearer” (Singer and Terrill 2009).

To guide them, the CBRC published identification criteria for first cycle birds, largely adopted from Zimmer (1991). At the same time, they acknowledged what some birders complain about, that “pale west coast birds matching presumed Iceland Gulls on the east coast are not automatically acceptable” in California (Rottenborn and Morlan 2000). Two years later, they repeated this sentiment, acknowledging that some of the rejected Iceland Gulls “would likely be identified as this species in eastern North America” (Rogers and Jaramillo 2002). The reverse is also true for similar reasons; birds considered to be pale Thayer’s Gulls in California are considered conservatively to be Iceland Gulls or hybrids between Thayer’s and Iceland in the eastern United States. A similar problem exists between *kumlieni* and *glaucoides*, usually in Newfoundland, where the identification criteria are overlapping (Howell and Mactavish 2003). Such a situation, where the same bird is identified two different ways, is disconcerting from the perspective of both the birder and the scientist, but will understandably continue until research on the breeding grounds clarifies the taxonomic relationships as well as the associated identification criteria for these forms.

In California, additional identification challenges have also played a role. Not all of the rejected records occurred because the reported bird was too close to Thayer's in plumage. The CBRC also notes that some "were more likely small and/or bleached Glaucous-winged, Glaucous, Thayer's, or hybrid (e.g., "Nelson's Gull, *L. nelsoni*") gulls" (Pyle et al. 2011).

Nevertheless, by 2006 the CBRC seemed to have changed its position regarding the status of Iceland Gull in California, stating, "The committee believes that Kumlien's Gull may occur rarely but regularly in California" (Heindel and Garrett 2008).

Through May 2013, the CBRC had accepted 17 records of Iceland Gulls and rejected 48. Ten of the accepted records have been since December 2010. As of May 2013, it has accepted 10 of the last 16 records it has adjudicated, representing a substantial change in the species' acceptance rate. Another six records are in various rounds of recirculation.

ICELAND GULL REPORTS FROM YOLO COUNTY

Of the records accepted by the CBRC, four have been at the Yolo County Central Landfill or adjacent Davis WTP, making it the leading site in the state for accepted records. A complete list of adjudicated reports from Yolo County is presented in Table 1. The CBRC and I consider record 2013-007 to be the same bird as 2012-036, returning for a second winter. Two other reports, a second cycle bird from March 2012 (2012-034) and a first cycle bird from March 2013 (2013-037) are in recirculation.

The actual number of Iceland Gulls reported from the landfill area is probably several times more than the birds listed here. Several are reported each winter and up to five "Kumlien's-type" gulls have been reported at once (T. Easterla, pers. comm.). Many of these were never submitted to the CBRC because adequate photos could not be obtained.

The plumages of the rejected birds are reflective of the pattern statewide. Most of the rejected birds show plumage patterns that would likely be called *kumlieni* on the East Coast, but were deemed too dark, such that a *kumlieni* x *thayeri* hybrid could not be ruled out.

Three of the rejected birds were in their first plumage cycle. Two of them had solid dark areas visible in the folded primaries, a dark secondary bar in flight, and fairly solid tail bands (Figures 3a and 3c). An additional rejected first cycle bird, 2009-049, was at the other end of the spectrum and deemed "too white" (Figure 3e). Despite its structure and pale base to the bill, many members of the committee felt they could not exclude a leucistic bird, presumably a petite female Thayer's. There have been several similar birds elsewhere in California, although some have been larger, leading to speculation that they could be leucistic birds of another species, small Glaucous Gulls, or faded hybrids involving Glaucous or Glaucous-winged Gulls.

Table 1: Disposition by the CBRC of submitted Iceland Gull records from the Yolo County Central Landfill area.

DATE	RECORD #	STATUS	AGE	OBSERVER	FIGURE
27 Dec 2007	2007-299	Accepted	first cycle	Hampton	Fig. 4a
27 Dec 2008	2008-231	Not accepted	first cycle	Hampton	Fig. 3a
8 Feb 2008	2009-009	Not accepted	adult	Sterling	Fig. 3b
8 Feb 2008	2009-010	Not accepted	first cycle	Sterling	Fig. 3c
15 Jan 2009	2009-014	Not accepted	adult	Sterling	Fig. 3d
12 Feb-28 Mar 2009	2009-049	Not accepted	first cycle	Easteria	Fig. 3e
19 Feb 2011	2011-242	Accepted	second cycle	Easteria	Fig. 4b
9 Mar 2012	2012-036	Accepted	adult	Easteria	Fig. 4c
19 Jan 2013	2013-007	Accepted	adult	Hampton	Fig. 4d
21 Feb 2013	2013-036	Not accepted	third cycle	Hampton	Fig. 3f

Figure 3: Iceland Gull records rejected by the California Bird Records Committee (see Table 1 for details).



3a: 2008-231



3b: 2009-009



3c: 2009-010



3d: 2009-014



3e: 2009-049



3f: 2013-036

Figure 4: Iceland Gull records accepted by the California Bird Records Committee (see Table 1 for details).



Figure 4a: 2007-299



Figure 4b: 2011-242



Figure 4c: 2012-036



Figure 4d: 2013-007

Two adults were also rejected, because they were too dark and thus possibly *kumlieni* x *thayeri*. The first showed slate gray, not black, on the folded primaries, but the primary pattern was never photographed (Figure 3b). The other had a primary pattern of approximately H on the scale created by Howell and Mactavish (2003), which is well within their range for *kumlieni* (Figure 3d). A bird from Morgan Hill, Santa Clara County, in 2007 (2007-165) showed only slightly more white, approximately a G on the scale, and was accepted. Likewise, a bird from Foster City, San Mateo County, in 2013 (2013-037) was very near an H on the scale and was accepted. It also had a honey-colored eye. Finally, a third cycle bird, 2013-036, was likewise deemed too close to *thayeri* such that a hybrid could not be ruled out (Figure 3f). Note that, with third cycle birds, the primary pattern is variable and not fully developed. This makes it difficult to ascertain what the pattern will look like as an adult.

More intriguing are the plumages of the accepted birds. The first cycle bird, 2007-299 (Figure 4a), was a well-marked *kumlieni*, with patterned primaries, tertials, and rectrices. The second cycle bird, 2011-242 (Figure 4b), had white primaries and a pale gray mantle. The adult that returned for two winters, 2012-036 (Figure 4c) and 2013-007 (Figure 4d), was a remarkable bird, with a primary pattern matching A or B on the Howell-Mactavish scale. Together with the first state record, the Bodega bird from 1984, they are the only white-winged adult Iceland Gulls documented for the state.

DISCUSSION

All of the accepted records fall into two camps: 1) well-marked *kumlieni* (Figure 4a), and 2) *glaucooides*-like birds with white primaries (Figures 4b, 4c, and 4d). This outcome is again reflective of the pattern statewide; virtually no paler-marked *kumlieni* have been reported in California. The former group, well-marked *kumlieni*, is more expected, especially if the birds are hybridizing with Thayer's Gulls. The latter group, white-winged *glaucooides*-like birds, is not expected, as they come from the farthest eastern portion of the Thayer's-Iceland range. Figure 5 presents a diagram to illustrate this pattern, both in Yolo County and statewide.

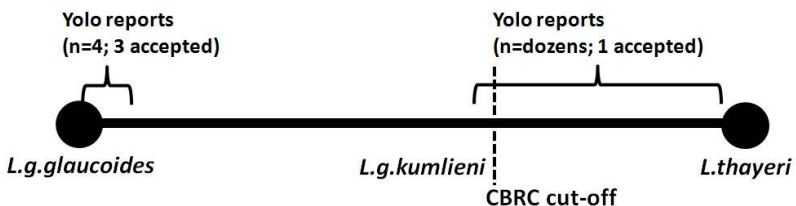


Figure 5 Accepted and rejected reports from across the Iceland-Thayer's Gull cline.

This pattern, combined with the fact that most records from Japan and South Korea are also *glaucooides*-like, invites speculation that our palest birds may in fact be coming to California via the Asian Arctic and could, in fact, be *glaucooides*. Some also speculate that these white-winged birds around the Pacific could emanate from “an unidentified taxon” that “might occur in Northern Russia” (Olsen and Larsson 2003).

The experience of the records submitted from Yolo County echoes what the CBRC has stated. Because of the need to rule out *kumlieni* x *thayeri* hybrids, only exceptionally pale birds will be accepted. This will inevitably exclude individuals that would be considered Iceland Gulls on the East Coast.

An examination of the accepted and rejected records, as well as some of the comments by members of the CBRC, suggests the following guidance:

- All birds should be petite in body structure and bill size, mimicking a female Thayer’s Gull or smaller.
- First cycle birds should have white or patterned primaries, tertials, and rectrices. The author has developed and applied a *glaucooides-kumlieni-thayeri* plumage scale for first cycle birds presented on-line at <http://www.tertia.us/gulls/tkg.htm>. A score of 0 would be a pale extreme *glaucooides*, while 28 would be a typical dark *thayeri*. An examination of submitted Iceland Gulls to the CBRC statewide suggests that birds scoring approximately 17 and lower have been accepted. Birds scoring 19 and higher have been rejected. Regarding the Yolo County birds, the accepted first cycle bird (2007-299) scored 16, while rejected ones (2009-009, 2009-010) scored 20 and 22, respectively. The “white gull” (2009-049), was rejected for other reasons discussed above.
- Faded birds in late winter, no matter how pale, face an exceptionally tough hurdle, as it is difficult to evaluate their original plumage prior to fading. In this situation, the CBRC is hesitant to affirm them as Iceland Gulls. The birds in recirculation, both from March, are facing this problem.
- Adult birds with any dark coloration in the primaries must have a pattern of H or lower on the Howell-Mactavish scale and probably be further supported by pale eyes, long wings, and short bills.
- While good photographs are critical, several submissions would have benefitted greatly by photographs showing them adjacent to other gulls in order to illustrate size and structure. Overly zoomed or cropped images thus limit information for the committee. For example, one committee member opined that the “white gull” (2009-049) could be a leucistic Ring-billed Gull, when photos with adjacent California or Herring Gulls could have easily ruled that out. Likewise, bill size and shape, which is important in ruling out Glaucous Gull and hybrids, can be difficult to gauge from photographs of an individual bird, but much easier to assess in comparison with other gulls.

SUMMARY

Birders regularly report gulls from the Yolo County Central Landfill that seem to come from across the *thayeri-kumlieni-glaucoides* spectrum. The taxonomic status and associated identification criteria for these forms have been much debated over the years. The current official position of the AOU, ABA, and CBRC is that Iceland Gull consists of two subspecies: *kumlieni* and *glaucoides*. Thus the CBRC must draw a line in the cline, as it were, to separate Iceland Gull from Thayer's Gull for the purpose of state records. Attempting to rule out potential *thayeri x kumlieni* hybrids, the committee has taken a very conservative approach, rejecting birds that may be called *kumlieni* on the East Coast, as well as faded birds whose original pigmentation is difficult to evaluate.

Iceland Gull reports from Yolo County are reflective of the statewide pattern; most birds are rejected, but some have been accepted. Reports from Yolo County can primarily be grouped into two categories: 1) dark *kumlieni* birds that are close to *thayeri* in plumage, which are reasonably expected; and 2) unexpected *glaucoides*-like birds, whose provenance is a source of speculation. Submissions of these birds to the CBRC, whether or not they are accepted as Iceland Gulls, provide documentation of the range of gulls from the *thayeri-kumlieni-glaucoides* spectrum that annually visit this site in Yolo County.

ACKNOWLEDGEMENTS

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