# KELP GULL (Larus dominicanus) IN PASCO COUNTY: FIRST RECORD FOR FLORIDA

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**Abstract.**—We describe the discovery of a third-cycle Kelp Gull (*Larus dominicanus*) at Anclote Gulf Park, Holiday, Pasco County, Florida, from 28 December 2010 to 8 January 2011. Identification was based on review of high-quality digital photographs and from extended field study. Eight of nine ornithologists familiar with the intricacies of gull identification agreed with the identification. The Florida Ornithological Society Records Committee reviewed the record (FOSRC 2011-838) and accepted the Kelp Gull as a natural vagrant. This observation represents the first record for Florida. We summarize the history of Kelp Gulls in North America and detail the two previous unaccepted reports from Florida.

At 0727 hours on 28 December 2010, while participating in the West Pasco Christmas Bird Count, Frank Brandt, Bob Lane, and Steve Mann found a black-backed gull at Anclote Gulf Park, Holiday, Pasco County, Florida (28.19307°N, -82.78885°W). The park fronts the Gulf of Mexico along the Pasco County mainland, 2.25 km north of the Pinellas County line, and lies along the northern canal of Progress Energy's Anclote power plant. Mann obtained five photographs of the gull as it rested on a mudflat. Subsequent examination of these photographs suggested that the gull might be a Kelp Gull (Larus dominicanus) rather than the more likely Lesser Black-backed Gull (L. fuscus) or Great Black-backed Gull (L. marinus). Gagne and Pranty searched for the gull during the afternoon of 30 December 2010, when it was not found, and during the morning of 3 January 2011, when it was rediscovered and photographed. During the next two mornings, the Kelp Gull was studied and extensively photographed (e.g., Figs. 1-2) as it roosted on intertidal flats and fed on catfish carcasses lying on the flats or floating in shallow water. On 6 January, the gull was observed offshore "harassing some Common Loons [Gavia immer] and other gulls" (K. Tracey in litt.) but it never landed on the flats. The following day, the gull was viewed for more than three hours as it roosted on the water but it again avoided the flats. The Kelp Gull was last seen shortly after sunrise on 8 January 2011 as it stood in shallow water and then flew past the park's fishing pier.

## RESULTS

Description.—Series of photographs of the Kelp Gull were taken by Tony Cambria on 3 January 2011, Steve Mann the following day, and Mark Berney on 5 January. The following description is based on examination of these photographs by us and others, as well as detailed field notes taken by Kwater immediately after viewing the gull from ca. 0730-0900 hours on 4 January 2011. Kwater observed the Kelp Gull in excellent light with a 10× binocular and a 32× spotting scope at distances of less than 30 meters on a day with little wind. For most of the observation period, the gull rested and foraged on an intertidal flat near the fishing pier, but it also flew past the pier several times at distances of less than 15 meters.

First impressions were of a large, black-backed gull virtually identical in size to American Herring Gulls (Larus argentatus smithsonianus) in direct comparison, but with a slightly heavier body. The bird's proportions were more reminiscent of a Great Black-backed Gull, with a bulky head, massive bill, relatively short wings, and long legs. The head shape varied from rounded to blocky depending on posture, and the crown often appeared flattened. The head, neck, underparts, and tail were wholly white, lacking any dark markings. When the gull was at rest, the back, scapulars, tertials, and folded wings were black or blackish. The gull showed narrow white scapular crescents and broad white tertial crescents, the latter merging with exposed white-tipped secondaries to form a white margin on the trailing edge of the closed wing. Four primaries (P6-P9) were always visible while at rest, with P5 occasionally visible just beyond the tertial crescent (M. Berney in litt.). The primary projection beyond the tail tip was about one-third the length of the longest tertial, with the tail tip aligned close to P7.

The bill was proportionately massive and thick, perhaps even more so than that of a Great Black-backed Gull in our experience. The bill was bright yellow with a large red to red-orange gonydeal spot and a duller, grayer tip. The gonydeal angle was very pronounced. Leg color was somewhat difficult to assess but the tibia appeared to be either bluish-gray or greenish-gray, with a definite yellow tinge around the heel joints. The tarsus, toes, and webbing between them were grayish-yellow, tinged with pink. The irides were clear, straw yellow. The color of the orbital rings was difficult to discern because of distance, lighting, and the proximity to the yellow irides, but were alternately described





Figure 1. (Top Left) Third-cycle Kelp Gull (right) and first-cycle American Herring Gull at Anclote Gulf Park, Holiday, Pasco County, Florida, 4 January 2011. The Kelp Gull was virtually identical in size to American Herring Gulls but had a massive bill with a sharper gonydeal angle and longer legs. In this photograph, the Kelp Gull appears adult-like, but when in flight or when its wings were extended, it showed characters of third-cycle plumage. The Kelp Gull dominated other gulls that attempted to feed on catfish carcasses. Photograph by Steve Mann.

Figure 2. (Bottom Left) Third-cycle Kelp Gull at Anclote Gulf Park, Holiday, Pasco County, Florida, 4 January 2011. The wings were dark with black outer primaries and a white sub-terminal spot on the inner web of the outermost primary (P10). Note also the limited "string of pearls" pattern on the inner primaries. Features visible here that indicate a third-cycle bird are the lack of white terminal tips to P6-P9 and mottling on the underwing coverts. Photograph by Steve Mann.

as yellow with a distinct orange tinge visible mainly in front of the eyes (Kwater) or uniformly orange-red with no yellow component (M. Berney in litt.).

In flight or when the wings were extended, the Kelp Gull showed two-tone upperwings. The lesser, median, and inner greater coverts were fresh and blackish, contrasting with the more worn outer greater coverts and all primary coverts, which were paler and browner. Pale feather shafts were visible on the greater primary coverts. The marginal coverts were white. The outer primaries (P6-P10) were black, with one small white sub-terminal mirror on the inner web of P10. The lack of white terminal tips to P6-P9 indicated a Kelp Gull in its third plumagecycle (Howell and Dunn 2007), meaning that this individual hatched in 2008. Little or no contrast was visible between the color of the back and the color of the outer primaries. The inner primaries were much browner, with paler inner webs and fairly large sub-terminal white spots on the inner webs of P2-P5, creating a limited "string of pearls" effect vaguely reminiscent of Slaty-backed Gull (L. schistisagus). The white-tipped outer secondaries were blackish on their outer webs and much paler on their inner webs. The inner secondaries were more uniformly dark and were also white-tipped, forming a broad white trailing edge to the inner wing.

The underwings showed marked contrast between the white coverts (with some blurred mottling) and the dark flight feathers. The white trailing edges to the secondaries and the "string of pearls" on P2-P5 were again evident, as was the small white sub-terminal mirror on P10. Many of the lesser and median coverts on the underwing had distinct brown edges, another indication of a Kelp Gull in its third cycle.

The Kelp Gull was dominant over American Herring Gulls when battling over catfish carcasses, and it vocalized several times during these interactions. Two calls were heard: a short yelping "eeah" call (M. Berney in litt.) and a long "laughing" call made up of a series of "cah" calls that was delivered with the wings raised and the head bowed. This long call was similar to congeners but was more hoarse and lower-pitched than Lesser Black-backed Gull or American Herring Gull, and less hoarse and higher-pitched than Great Black-backed Gull (M. Berney in litt., R. Smart in litt.). Paul Francois obtained video of the Kelp Gull while it uttered one long call (http://www.youtube.com/watch?v=o62TKruBLww).

Based on his examination of photographs of the Pasco County Kelp Gull, Peter Pyle (in litt.) analyzed its wing molt; his narrative (lightly edited, with permission) follows:

The molt is very interesting and the limit in the greater coverts seems anomalous. I wouldn't expect the gull to be starting molt now, as past evidence (e.g., Laughing Gulls [Leucophaeus atricilla] in Australia) suggests that gulls that cross the equator immediately switch to hormonal/molt cycles corresponding to the new light regimes.

I at first thought that there may have been a suspension of molt between P4 and P5 (and associated primary coverts), or in any case it was very protracted, explaining the strong cline between the browner P1-P4 and blacker P5-P10. But the latter feathers also seem pretty worn, so this shift may be more due to molt and age, with the molt starting when hormonal/feather-pigment signals were indicating younger plumage, and that these then shifted toward signaling more adult-like coloration as the molt proceeded. The cline in the primaries is more obvious than in most third-cycle gulls (cf. Pyle 2008), but it appears to be related to age/molt/hemisphere-switching interactions to a greater extent than to anything related to hybridization with Herring Gull.

The browner outer greater coverts are much harder to comprehend. Molt of these normally begins near the body (tertial coverts) and then proceeds distally, more or less. But in some groups, including gulls, these feathers can all molt fairly rapidly and not quite orderly. At any rate, this makes me think that those outer greater coverts truly are retained from the previous generation, rather than being based on a protracted and/or suspended molt and hormone-color switch, as in the primaries. (The one replaced covert distally in the left wing may have been replaced accidentally or later for some reason, but

it is not unusual to see this sort of pattern). It is also possible that molt started with the outer five feathers when signals were for younger (browner) feathers, that the molt was then suspended, and then resumed with the inner feathers after the hormonal switch to blacker (older). In either case I would view this as an anomaly that was likely related somehow to the gull's changing hemispheres in the middle of its third pre-basic molt. Again, I don't see this as any indication for hybridization with Herring Gull.

Identification.—Because the Pasco County Kelp Gull was in its third cycle and appeared adult-like in most respects, it is compared here with adults of other species. Worldwide, 11 species of gulls are white-bodied and dark-backed in adult plumage. Adults of five of these species have a bold black sub-terminal tail band and can be eliminated from contention: Black-tailed Gull (Larus crassirostris) and Pacific Gull (L. pacificus) of the Old World; and Belcher's Gull (L. belcheri), Dolphin Gull (L. scoresbi), and Olrog's Gull (L. atlanticus) of South America. The six remaining species of white-bodied and dark-backed gulls have white tails in adult plumage, and all have been recorded in North America. Kelp Gull can be distinguished from the other five species by the combination of body size and proportions, bill morphology, the lack of color contrast between the back and outer primaries, the pattern of white spotting on the outer primaries, and bare-parts coloration. Arranged in decreasing likelihood of occurring in Florida, descriptions of the five other dark-backed and white-tailed gulls follow.

Lesser Black-backed Gull of Europe and Africa is a regular and increasing winter resident in eastern North America, including Florida. It is noticeably smaller than American Herring Gull in direct comparison. The subspecies graellsii, which is the subspecies typically found here, has a heavily-streaked head during basic plumage, bright yellow legs and feet, and a dark gray back that contrasts with the black outer primaries. The blacker-backed subspecies fuscus and intermedius are otherwise similar except that in basic plumage the head is not as streaked. Structurally, the Pasco County gull did not resemble a Lesser Black-backed Gull: its wings were too short (the folded primaries did not project far enough beyond the tail), its legs were proportionately long, and its bill was much heavier and thicker, with a much more pronounced gonydeal angle.

**Great Black-backed Gull** is a regular winter resident along Florida's coasts, primarily the Atlantic side. It is a huge gull with a massive bill, a very dark gray back showing little contrast with the outer primaries, and dull pink legs and feet. P10 has a large white tip

that merges with a white sub-terminal spot on P9. P6-P8 also have sub-terminal white spots. Occasionally, Great Black-backed Gulls can show yellowish legs and toes with pink webbing (L. S. Atherton in litt.), but plumage characteristics of the Pasco County gull rule out an aberrant, runt *L. marinus*.

**Slaty-backed Gull** is resident in coastal northeastern Asia; it is a vagrant in much of North America, with one Florida record (Bowman and Greenlaw 2006). It has a dark gray back and wings, black outer primaries with white terminal spots, and pink legs and feet. Its head is heavily streaked in basic plumage and the inner primaries show a strong "string of pearls" pattern.

**Western Gull** (*L. occidentalis*) of western North America has rarely strayed eastward; there is no Florida record. It too has a dark gray back and wings, black outer primaries with white terminal spots, a large white sub-terminal spot on P10, pink legs and feet, and a head streaked with brown in basic plumage.

**Yellow-footed Gull** (*L. livens*) breeds in the Gulf of California and strays northward to southern California; there is no Florida record. It is very similar to Western Gull, including the contrast between the back and outer primaries and the pattern of white terminal spots, but its legs and feet are bright yellow and the bill is massive with an even more pronounced gonydeal angle.

Finally, we must address the so-called "Chandeleur" Gulls (Dittmann and Cardiff 2005), which are hybrids between Kelp Gull and American Herring Gull parents. These gulls are named after the Chandeleur Islands, Breton National Wildlife Refuge, Louisiana. In July 1989, a territorial pair of Kelp Gulls was found on the southern Chandeleur Islands, furnishing the first report of the species in North America. In 1990, presumably the same Kelp Gull pair was again present, along with another Kelp Gull that was paired with a Herring Gull and was guarding a fledgling (Dittmann and Cardiff 2005). By 1998, the Chandeleur Islands colony included at least 22 pairs of large gulls, among these nine pairs of Herring Gulls, Kelp Gulls paired with a hybrid and apparently with a Herring Gull, and at least 14 hybrids of various ages. The last "pure" Kelp Gull at the Chandeleur Islands was seen in 2000, and only one "pure" Herring Gull remained by 2004, leaving as many as four generations of hybrids to continue in the colony (Dittmann and Cardiff 2005). Back color of the hybrids varied but was usually between gray and dark gray (e.g., Fig. 6 in Dittmann and Cardiff 2005). The gull colony at the Chandeleur Islands has not been visited since spring 2005 (D. Dittmann in litt.), preventing recent assessment of its status. In 2010, three "Chandeleur" Gulls were found on a spoil island at Mobile Bay, Alabama, including one light-graybacked adult photographed on a nest 4 May 2010 (McConnell 2010).

## DISCUSSION

The identification of the Pasco County gull as a Kelp Gull would be straightforward if not for the presence of "Chandeleur" Gulls in the Gulf of Mexico—especially given the 2010 breeding record in Alabama (McConnell 2010). While we cannot exclude the possibility that Kelp Gulls are again breeding somewhere in the Gulf region, the plumage pattern of the Pasco County gull suggests that it was neither a hybrid nor a backcross. Donna Dittmann and Steve Cardiff, who discovered and documented the "Chandeleur" Gulls in Louisiana (Dittmann and Cardiff 2005), saw no evidence (in litt.) of hybridization in the photographs that they examined. Likewise, six other gull experts pronounced the Pasco County gull a Kelp Gull (L. S. Atherton, J. Dunn, A. Jaramillo, T. Leukering, P. Pyle, and M. Reid in litt.). Alvaro Jaramillo (in litt.) went so far as to call it an "absolutely perfect third-cycle Kelp Gull" and a "classic."

Steven N. G. Howell was the only gull expert who commented that he could not exclude a hybrid as representing the Pasco County gull. Howell (in litt.) cited three field marks that he felt did not "look quite right" for Kelp Gull: the "relatively pale tone" of the upperparts; the white mirror on P10 thought to be "very rare" on third-cycle birds (but see Howell and Dunn 2007:432); and "the slight pinkish tinge to the legs." But Howell admitted (in litt.) that the range of variation within Kelp Gulls also was uncertain, and that he was uncertain whether any of these field marks was sufficient to rule out a "pure" Kelp Gull. In response to Howell's evaluation, A. Jaramillo stated (in litt.) that "[t]here is nothing obvious on this bird that suggests it is a hybrid." Peter Pyle (in litt.) stated that he "wouldn't worry too much about [the Pasco County gull being a] hybrid with Herring [Gull] unless there are some obvious signs indicating F1 or F2."

Kelp Gulls attain adult plumage during their fourth cycle (Howell and Dunn 2007), but individuals in their third cycle are often very adult-like (Dittmann and Cardiff 2005, A. Jaramillo in litt.). With its wholly white head and tail and yellow bill lacking any dark smudging, the Pasco County gull appears like an adult Kelp Gull, but third-cycle features include the brownish wash on the inner wings, mottling on the underwing coverts, lack of white tips to the outer primaries, and duller leg color. Alvaro Jaramillo (in litt.) predicted that the white mirror on P10 of the Pasco County Kelp Gull would be a bit larger by its fourth cycle.

The number of subspecies of Kelp Gull is uncertain. Dickinson (2003) lists only two subspecies: nominate *dominicanus* of mainland South America, subantarctic islands, New Zealand, and southern Australia; and *vetula* of Madagascar and South Africa. Howell and

Dunn (2007) accept five subspecies: nominate dominicanus in mainland South America; austrinus on the Falkland and Shetland islands, South Georgia Island, and Antarctica; vetula in South Africa; melisandae on Madagascar; and judithae on Subantarctic Indian Ocean islands. Distinguishing between subspecies in the field is difficult; Howell and Dunn (2007) use terms such as "relatively," "slightly," and "varying" to describe subspecific differences in bill morphology, back color, and soft-parts coloration. We dare not assign the Pasco County Kelp Gull to subspecies, but we presume that it came from South America, based solely on geography.

Since the first record in Louisiana in 1989, Kelp Gulls have shown a pattern of vagrancy to North America. They are casual visitors along the Gulf of Mexico (in Mexico, Texas, Louisiana, Alabama, and Florida) and are accidental to Colorado, Indiana, Maryland, Barbados, Panama, and Trinidad (Lockwood and Freeman 2004, Howell and Dunn 2007, Semo 2007, Pranty et al. 2008, this paper).

Reviewers of Kelp Gull records in Colorado and Maryland considered the possibility of an escape from captivity. Because of the documented pattern of vagrancy of Kelp Gulls to the Gulf of Mexico, we saw no need to consider the issue of provenance of the Pasco County gull. Nonetheless, we reviewed the website of the International Species Information System (ISIS 2011) to determine the number of Kelp Gulls held in captivity. Only four facilities in the world reported captive Kelp Gulls as of January 2011: one in Chile, two in Argentina, and one in the United States. The latter facility was the John Ball Zoo at Grand Rapids, Michigan, which held one male and two female Kelp Gulls (ISIS 2011). Zoo staff confirmed that all three Kelp Gulls remained at the facility, that all are banded, and that all are 28-year-old adults (C. Dykstra in litt.).

In June 2011, the Florida Ornithological Society Records Committee (FOSRC) reviewed the record of the Pasco County Kelp Gull (FOSRC 2011-838). The committee unanimously accepted the record as representing a natural vagrant and added the species to its Official State List (A. W. Kratter in litt.). Two previous reports of Kelp Gulls in Florida were rejected by the FOSRC: description of one third-winter gull (FOSRC 96-361) at Fort Pickens, Gulf Islands National Seashore, Escambia County, on 23 December 1995 (Bowman 2000); and photographs and description of one unstated age (FOSRC 02-475) at Captiva Island, Lee County, on 12 March 2002, which the FOSRC considered a Great Black-backed Gull (Bowman 2004).

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