

FIRST NESTING OF THE CALIFORNIA GULL IN NEW MEXICO

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ABSTRACT: The California Gull (*Larus californicus*) has been expanding its breeding range southward in the western United States, including in the Rocky Mountains, for several decades. In New Mexico, the species was accidental in occurrence until numbers appeared in summer in the mid-1970s. Here we document the first breeding of the California Gull in New Mexico, where a small colony containing four broods was discovered in 2013; this event extends the known breeding range southward in the Rocky Mountains by about 150 km. Nesting will likely continue at least intermittently in New Mexico as water levels in the state's reservoirs, and the presence of islands suitable for nesting, fluctuate over time.

The California Gull (*Larus californicus*) breeds largely in the interior of North America from the Northwest Territories and prairie provinces of Canada south into the U.S. locally to California, Nevada, Utah, and along the Rocky Mountain front from Wyoming into Colorado. Until recently, the southern limits of the breeding range included Mono Lake in California, the Great Salt Lake and Utah Lake regions of Utah, and southern Colorado (Winkler 1996). Exceptionally far south, a small colony was discovered at the Salton Sea in southern California in 1997 (Molina 2000). Here we provide documentation for California Gulls successfully nesting in northern New Mexico at Heron Lake in 2013.

HISTORY OF THE CALIFORNIA GULL IN NEW MEXICO

The California Gull is a relative newcomer to New Mexico, with only two records for the state prior to the mid-1970s: fall 1942 (band recovery near Carlsbad, Eddy County; Woodbury and Knight 1951, Hubbard 1978) and spring 1960 (observation near Española, Rio Arriba County; Audubon Field Notes 14:330, 1960). Its known status radically changed in the mid-1970s, when J. P. Hubbard discovered 31 in July 1975 at Heron Lake (elevation 2188 m), a newly created reservoir adjacent to the San Juan Mountains, Rio Arriba County (American Birds [AB] 29:1016, 1975), followed by 37 seen at Eagle Nest Lake (elevation 2493 m) in the Sangre de Cristo Mountains, Colfax County, in June 1976 (AB 30:987, 1976). The species has since appeared annually at those sites in summer, occasionally in substantial numbers, as well as increasingly at other northern New Mexico locales, including on the Colorado Plateau at Morgan Lake, San Juan County.

By the late 1970s, migrating California Gulls began to occur at large lakes in the lower Rio Grande Valley of New Mexico: in Sierra County at Caballo Lake by November 1978 (AB 33:203, 1979) and Elephant Butte Lake by November 1979 (AB 34:188, 1980). Since then the species has increased in numbers and regularity there as well as to the south in Doña Ana County

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and also in several northwestern counties. It is now regular in small numbers in winter in Sierra and Doña Ana counties and is increasingly regular in the northwest in San Juan County.

In addition, summering birds now regularly linger at the Sierra County reservoirs. Elsewhere in New Mexico, the California Gull is rare and irregular in the middle Rio Grande Valley (where migrants are likely overlooked) and the watersheds of the Canadian and Pecos rivers and is casual elsewhere (e.g., eastern plains, southwestern counties). There are now reports from 27 of New Mexico's 33 counties (Williams, unpubl. data).

DISCOVERY OF THE HERON LAKE COLONY

On 28 June 2013, Howe and Marilyn D. Howe were canoeing Heron Lake, with the intent of circling the largest island in the lake (36.6827° N, 106.7012° W) to investigate the activity of the gulls that were visible from shore over a kilometer away. Ring-billed (*L. delawarensis*) and California gulls had been frequently seen using this island, which is usually small and steep-sided at the water levels normally maintained at the lake. In 2013, following three years of drought, this island was much larger than usual, with long, relatively flat shelves radiating out from the steep center, particularly on the northwest side. It was on this northwestern shelf that the gull activity seemed to be concentrated, and thus a target of the canoe trip.

During our approach to the island from the southwest, 20 or more of what appeared to be California Gulls were visible from a distance. As the northwestern shelf came into view, two large but flightless gull chicks were seen running into the water in response to the approach of the canoe. As we maintained a distance of about 75 m from shore (the distance beyond which the gulls ceased to mob us), a scan from the canoe revealed 26 adult California Gulls plus four different broods of chicks—the two large chicks in the water, another brood of two large chicks with an attendant pair of adults, a younger chick with a single adult in attendance, and a pair of adults with two small chicks. There were also up to five solitary adults on the island in positions suggesting incubation, but we could not accurately count how many might have been incubating. Other adults loitering in this area may or may not have been associated with active nests.

AGE OF CHICKS AND NESTING CHRONOLOGY

We estimated the ages of chicks, all of which were photographed, on the basis of visible characteristics as presented by Smith and Diem (1972). We estimate the young California Gulls observed on 28 June 2013 ranged from about 9 to 27 days in age. The youngest chicks (Figure 1), about 9 days of age, appeared as balls of fluff with legs and necks more prominent than in chicks less than a week old but lacked apparent development of pin feathers in the wing or humeral tract, which typically begins around day 11. The next oldest was a single fluffy bird with a single adult; from the fuzzy appearance of its entire front due to down feathers clinging to the tips of the juvenal feathers, plus the lack of juvenal feathers on the crown or front of the head and only a hint of dark gray tuft in the auricular area, that chick

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Figure 1. California Gull chicks estimated to be about 9 days old at Heron Lake, Rio Arriba County, New Mexico, 28 June 2013, representing the youngest of four broods documented there that day.

Photo by William H. Howe

appeared to be in the middle of its third week, or about 17 days old. The oldest chicks were the two on shore with two adults (Figure 2) and the two on the water; these appeared to be roughly the same age of about 27 days, by their feathered heads, traces of down around the neck, and the backs appearing fully feathered or nearly so.

California Gulls typically lay two to three eggs per clutch, at two-day intervals, and full incubation does not begin until completion of the clutch (Winkler 1996). Five studies cited by Winkler (1996) indicated average incubation periods ranging from 23.6 to 26.6 days, with an overall average among those studies of 25.2 days. Presuming an incubation period of about 25 days suggests that the eggs producing the oldest chicks were laid on or about 7 May, and those of the youngest chicks on or about 26 May, with the egg of the intermediate-aged chick laid about 17 May.

DISCUSSION

Conover (1983), analyzing available data from the early 20th century forward, concluded that the California Gull had increased substantially in both range and abundance in western North America. To the north of New Mexico in Colorado, Andrews and Righter (1992) observed that the species had “increased dramatically” since the 1950s, with the first breeding

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Figure 2. Adult California Gulls with two chicks estimated to be about 27 days old at Heron Lake, Rio Arriba County, New Mexico, 28 June 2013, representing the oldest of four broods documented there that day.

Photo by William H. Howe

documented in 1963, regular wintering established by the mid-1970s, and breeding established as far south as southeastern Colorado by 1988. The increases observed in New Mexico since the mid-1970s, including in migrating, wintering, and summering birds, which led to the discovery of nesting reported here, appear to have been a predictable part of this overall increase in range and numbers during the latter half of the 20th century.

Heron Lake began filling in 1971 and was populated by summering California Gulls by 1975. There was no known breeding until 2013, likely because of the absence of a substrate suitable for nests. Under normal operating conditions, the water level of the lake is maintained at about 2188 m. At that level the small, steep-sided island is presumably unsuitable for nesting California Gulls. The lake's surface elevation on the day of discovery of the colony was 2171 m. Visual estimates from the canoe suggested the elevation of the shelf upon which the gulls were nesting was about 2174 m, increasing gradually toward the interior of the island. Given this, we estimate that this island in Heron Lake would likely be suitable for nesting by California Gulls when the water's surface elevation ranges between about 2160 m and 2175 m.

Water levels at Heron Lake are likely to continue fluctuating with the climate, and this site's suitability for breeding gulls should vary over time. Since the dam was constructed in 1971, water levels may have been suitable for nesting in other years, such as in 2004, when the May surface elevation

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was 2169 m, and possibly in 2003 and 2005, when May surface elevations were 2176 m. In 2003, the water level changed little during the ensuing summer; in 2005, however, the level increased to 2182 m by mid-June, which would likely have flooded any nests. Regardless of year-to-year variability, there now appears to be a population of adult California Gulls in northern New Mexico during late spring and early summer, poised to exploit suitable conditions wherever they may become available.

Breeding at Heron Lake not only marks the first documented nesting by the California Gull in New Mexico, it also extends its known breeding range in the Rocky Mountain region some 150 km to the south, making it second only to the Salton Sea as the southernmost colony known for the species. In addition, this is the only known nesting of any species of gull in New Mexico.

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