

MOVEMENTS OF SASKATCHEWAN-BANDED CALIFORNIA GULLS

BY C. STUART HOUSTON

California Gulls (*Larus californicus*), fledged in Saskatchewan, follow an unusual migration route, travelling almost due west to reach the Pacific coast. Sightings by telescope have greatly augmented knowledge gained by the more usual modes of recovery.

METHODS

In 18 summers from 1955 through 1973, excluding 1959, my assistants and I banded 7,467 flightless young California Gulls on islands at seven Saskatchewan lakes. In 18 years at Redberry Lake, we banded 5,493 young; in 4 years at Dore Lake, 1,359 young; in 9 years at Last Mountain Lake, 160 young; in 2 years at a temporary marsh near Kindersley, 104 young; in one visit to Crane Lake, 346 young. Three were banded at Quill Lake and two at Fishing Lake.

RESULTS

As of 1 October 1976, band encounters from 2.3% of these California Gulls have shown the consistent westerly migration route of this species (Fig. 1). As yet, there have been no direct recoveries from the inland states within the breeding range of this species (Montana, Idaho, Wyoming, and Utah), which incidentally lie along the direct migration route of other Saskatchewan species, such as the Pintail (*Anas acuta*) that winter in California (Bellrose, 1976).

Four different observers on the Pacific coast have made 66 telescope sightings of 61 individual gulls. Five gulls had their bands read in two years; repeat telescope sightings the same season were not counted. These telescope sightings of 61 gulls represent 0.82% of the 7,467 banded gulls in this study; over 2% of the gulls banded in 1958, 1960, and 1962 were reported by this means.

The majority of the telescope sightings were made near Vancouver, British Columbia (three localities signified by "T" in Fig. 1), with 35 gulls recorded on 39 occasions by R. Frank Oldaker and 20 gulls on 21 occasions by Ian R. McGregor. There were two sightings each by McGregor at Everett, Washington, by Laurence C. Binford at San Francisco Bay and by John G. Shaw at Santa Barbara, California. Of the 66 telescope sightings by the four observers, 25 were during the initial fall migration, 21 were in the subsequent year, and the oldest was five years old.

The second commonest reason for reporting, the category "found dead," comprised 54 gulls, whereas 13 were injured, 6 were caught in fish line or nets, and the remaining 21 were from 11 other recovery categories.

The whereabouts of all reported birds during the Saskatchewan breeding season, arbitrarily assumed to be from 10 May to 31 July, showed that 17 of 18 one-year-old gulls and 4 of 9 two-year-old gulls were reported from the Pacific coast. One year-old gull

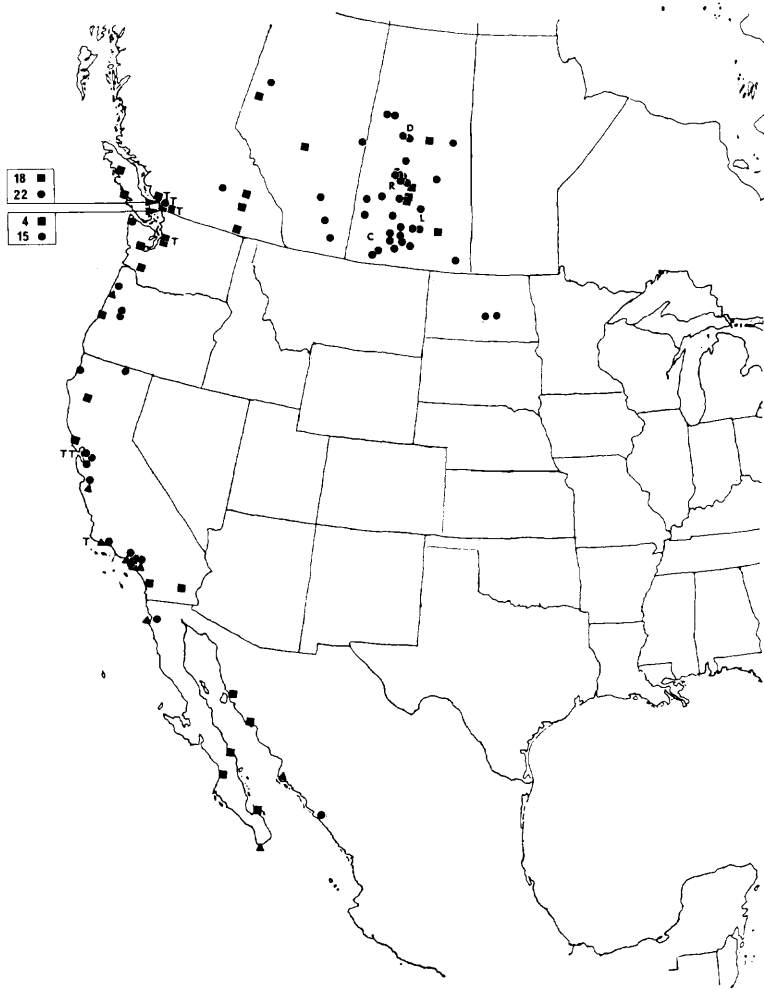


FIGURE 1. Map of 170 band encounters from 7,467 California Gulls banded in Saskatchewan. T - telescope sightings. In Saskatchewan: R - Redberry Lake; C - Crane Lake; D - Dore Lake; L - Last Mountain Lake. Squares - direct recovery in calendar year of banding; triangles - after 1 January of following year, on wintering grounds; circles - birds one year of age or more.

from Crane Lake was sighted at the Vancouver dump continuously from 7 June to 8 July and another from 18 July to 5 August. In contrast, all 17 of the three-, four-, and five-year-old gulls were reported from inland sites, 15 in Saskatchewan and one each in Alberta and North Dakota; only the Alberta bird was more than 100 km from a known nesting site of this species.

DISCUSSION

California Gulls reared in Saskatchewan proceed about 1,200 km west, crossing the Rocky Mountains to reach the mainland coast of British Columbia and Vancouver Island. The four earliest arrivals from Saskatchewan recorded by telescope at Vancouver were on 10, 10, 11 and 12 August, all within six weeks of fledging (Houston, 1973). California Gull numbers gradually decrease at Vancouver through late September and October (Oldaker, 1961), as the birds proceed south along the coast to California and Mexico. All United States direct recoveries during fall migration were from the three western states, Washington, Oregon and California, with none from the inland states.

During the following two summers, when the gulls are approximately one and two years of age, before maturity (Johnston, 1956), many remain along the coast.

It is fortuitous that my gull banding coincided with the band-reading efforts of Frank Oldaker and Ian McGregor. Such readings give a more accurate picture of arrival and departure times than random recoveries of dead birds. Oldaker spent much of his time from 1960 to 1963 at the Vancouver city dump for the purpose of reading gull bands (Oldaker, 1960; Houston, 1963). Not more than one percent of the California Gulls at Vancouver wore bands (Oldaker, pers. comm.). From 1967 to 1971, Ian McGregor of Seattle made many weekend visits to the now relocated Vancouver dump at Burns Bog, immediately north of the United States boundary.

Since virtually all California Gulls of Saskatchewan origin apparently pass through British Columbia, it is not surprising that a high percentage of young-of-the-year at Vancouver in the first fall migration were from Saskatchewan (18 of 97 or 18.6%). This compares with only 9.9% (39 of 395) Saskatchewan birds in the overall total of all age groups. The other banded California Gulls at Vancouver originated from 16 lakes in Alberta, North Dakota, Montana, Wyoming, Idaho, Washington, Oregon, and California (Oldaker, 1963). All of these gulls arriving at Vancouver from the United States took a more northerly fall migration route than did the birds from Saskatchewan. Those from Mono Lake, California and from Keno, Oregon, moved almost due north to reach Vancouver.

Published accounts of recoveries from California Gull colonies in the United States further confirm that these birds fan out towards the Pacific coast in their first fall migration, reaching as far north as British Columbia (Behle, 1958; Oldaker, 1963; Diem and Condon, 1967; Moos, 1972). No Wyoming or Utah birds were recovered in Alberta or Saskatchewan, and only 7 of 444 band encounters from gulls banded at Freezeout Lake, Montana, within 168 km of the Alberta boundary, were from these two provinces.

When one considers the more southwesterly route followed by other Saskatchewan species destined for the Pacific coast, and the intermingling in the Vancouver area of gulls from United States and Canadian colonies, it is all the more unexpected that Sas-

katchewan-bred California Gulls so regularly stay north of the 49th parallel en route to the coast during their first fall migration, during their summer wanderings as nonbreeding subadults, and during their subsequent migrations to and from the breeding grounds as adults. One might speculate that there could be some advantage in terms of food availability in following the ocean coast as long as possible, even at the expense of a much longer migration to many colonies.

ACKNOWLEDGMENTS

I am indebted to my wife and subpermittee, Mary Isabel Houston, for her assistance on almost all banding trips. This work would not have been possible without her and other assistants too numerous to mention. To Ian McGregor and to the late R.F. Oldaker, I owe an equal debt of gratitude. Dr. J.B. Gollop offered helpful criticism of this manuscript.

LITERATURE CITED

- BEHLE, W. H. 1958. *The Bird Life of Great Salt Lake*. Salt Lake City, University of Utah Press.
- BELLROSE, F. C. 1976. *Ducks, Geese and Swans of North America*. Revised ed. Harrisburg, Stackpole.
- DIEM, K. L., AND D. D. CONDON. 1967. Banding studies of water birds on the Molly Islands, Yellowstone Lake, Wyoming. Yellowstone Natl. Park, Yellowstone Library and Museum Assn. 41 p.
- HOUSTON, C. S. 1963. R. F. Oldaker, the man who reads gull bands with a telescope. *Blue Jay*, **21**: 53-57.
- . 1973. One man's debt to readers of ring numbers. *The Ring*, **75**: 33-35.
- JOHNSTON, D. W. 1956. The annual reproductive cycle of the California Gull. *Condor*, **58**: 134-162; 206-221.
- MOOS, L. M. 1972. Gull banding in Montana. *Proc. Mont. Acad. Sci.*, **32**: 20-23.
- OLDAKER, R. F. 1960. Band reading by telescope. *News from the Bird-Banders*, **35**: 39-42.
- . 1961. Survey of the California Gull. *Western Bird Bander*, **36**: 26-30.
- . 1963. Sight records of banded California Gulls. *Western Bird Bander*, **38**: 7-10.

863 University Drive, Saskatoon, Saskatchewan, Canada S7N 0J8.
Received 30 November 1976, accepted 11 March 1977.