
Migration of Common Terns Banded in Western Canada

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ABSTRACT

From 64 recoveries of Common Terns banded in Alberta, Saskatchewan and Manitoba, 46% were from Mexico or farther south. Terns reached California in mid-Sep. Most wintered in a concentrated area along the western coastline of Mexico and central America.

INTRODUCTION

A Common Tern (*Sterna hirundo*) recently surpassed an Arctic Tern (*Sterna paradisaea*) as the champion long-distance migrant among birds. Banded as a nestling in central Finland, 30 Jun 1996, it was caught by Australian bird bander Clive Minton near the Gippsland Lakes in coastal Victoria, Australia, on 24 Jan 1997, a presumed coastline distance of about 25,600 km via Cape of Good Hope. The biologically implausible direct-line distance would be closer to 15,000 km. The previous world record was an Arctic Tern that flew from Russia to Fremantle, Australia, again a calculated coastline distance of 22,400 km (Minton and Phillips 1997). This recent attention to Common Tern movements stimulated my review of dispersal of Common Terns banded on islands on Canadian prairie lakes.

METHODS

The Canadian Wildlife Service banding office supplied data for all Common Tern recoveries and for number of terns banded since the advent of computerization in 1955. I had access to original banding records for terns banded by Saskatchewan banders prior to 1955 (Houston 1945, 1970),

allowing me to determine exact localities for recoveries within Mexican states, the one area for which the banding office (until recently) did not calculate latitude and longitude. Mary Gustafson of the banding office at Patuxent Refuge, Maryland, provided locality data from original band finder reports for the other four terns recovered in Mexico, three from Alberta and one from Manitoba. The location described as "on the beach" in Jalisco, Mexico, I interpreted as most probably being near Puerto Vallarta. It is not possible to ascertain the number of terns banded by early Alberta banders J. E. Horning, George L. Cook, or Fred Pegg. There were no recoveries from Manitoba banding, if any, prior to 1955.

RESULTS AND DISCUSSION

From 8788 Common Terns banded since 1955 in western Canada (5050 in Saskatchewan, 1104 in Manitoba, and 2634 in Alberta), overall recovery rate was 0.7% (Table 1). Seven recoveries from pre-1955 banding in Alberta suggest that another thousand, more or less, may have been banded in that province. Of the 64 recoveries, 20 were found dead. Four band finders gave only "band obtained," with no cause of death reported, but all four were within the first year of banding, hence can be used in age calculations. Subsequently, two terns were trapped on their nests and released. The remaining recoveries were caught in fish line or gear (14), shot (9: 2 in California, 1 in Alberta, 4 in Mexico, 2 in El Salvador), "caught by hand" (6), injured (5), and caught in trap (4).

Table 1. Common Terns Banded in Western Canada, 1928-1991.					
Province	Bander	Years	No. Banded	# Recovered	Total in Prov.
Manitoba:	Harold Hosford	1960-1964	379	1	1
	David Hatch	1963-1971	395	2	
	Roger Evans	1968	143	2	1
	Others (4)	1962-1971	187	0	
TOTAL MAN.			1104	5	2
Saskatchewan:	George Lang	1928-1936	447	1	
	Fred Bard	1936-1950	1244	2	2
	Stuart Houston	1952-1986	3107	25	1
	Lorne Scott	1975-1991	197	2	
	Others (4)	1955-1962	55	0	
TOTAL SASK.			5050	30	3
Alberta:	Lloyd Kuhn	1964-1967	522	5	2
	Vic Lewin	1970-1977	2015	16	8
	Alta. Wildlife	1969	9	1	1
	Others (3)	1955-1956	88	0	
TOTAL ALB.			2634	22	11
KNOWN TOTAL			8788	57	16
Alberta pre-55:	J.E. Horning	1936-1937	?	5	3
	Geo. L. Cook	1938	?	1	1
	Fred H. Pegg	1940	?	1	
TOTAL pre-1955 Alberta			?	7	4
TOTAL RECOVERIES 1928-1991			?	64	20

Over half the recoveries (37 or 58%) were within 12 months of banding. Fred Bard trapped a Common Tern at Isle of Bays, Old Wives Lake, SK, on 21 Jun 1957; it had been banded on 8 Jul 1948 as a nestling at Last Mountain Lake, 155 km to the north, almost nine years earlier. This tern was the longest surviving bird in this series (Table 2). With the exception of Lorne Scott, who used size 2 bands exclusively, recoveries from other banders were from birds banded with the then-recommended size 3 bands which show wear from exposure to salt water more rapidly than do size 2 bands (Nisbet and Hatch 1985). This band wear factor, and relatively small sample sizes, may

explain the lack of very long-lived terns from western Canada, far short of the species' longevity record of 25 years (Klimkiewicz 1999).

One recovery had no locality provided, and one recovery from an unspecified locality within California could not be mapped, leaving 63 for study of migratory dispersal, and 62 that could be mapped and distance calculated. Overall, 20 of 63 (32%) of recoveries were obtained within the province of banding (Table 1). Seven recoveries showed no movement, as follows. Four Alberta bands and one Manitoba band were found the same season on dead nestlings at the island

Table 2. Age at Recovery of Common Terns Banded in Western Canada. All Banded as Nestlings.

Age (year)	0	1	2	3	4	5	6	7	8
Number	37	5	5	7	2	3	1	2	2

where banded. In Alberta, Vic Lewin trapped a tern at a nest at the same lake where it hatched three years earlier (most Common Terns do not breed until three years of age; Burger and Gochfeld 1991). A nestling tern banded by Lloyd Kuhn at Buffalo Lake was found dead five years later at the same lake.

Mean distance traveled from the nest site but within the province of banding was 93 km within Alberta (n = 9, mean direction of 197°), 102 km within Saskatchewan (n = 3, mean direction 178°) and 20 km for one tern within Manitoba. These in-

province recoveries occurred by 23 Aug at the latest. Strangely, only one (4%) of my personal 25 Saskatchewan-banded tern recoveries was within the province. I mapped 42 out-of-province recoveries. Mean distance traveled to another province or state, north of Mexico, was 1776 km from Alberta (n = 7, mean direction 194°) and 1873 km from Saskatchewan (n = 6, mean direction 178°). These included two recoveries from Minnesota, one each from British Columbia and South Dakota, and 10 from California. Same-year recoveries of Alberta nestlings occurred in California on 15, 17, and 19 Sep and of Saskatchewan nestlings on 21 Sep and 14 Oct.

No other prairie breeding species has to this date shown such a high proportion of recoveries (46% of total recoveries and a remarkable 67% of out-of-province recoveries) from south of the Rio Grande. All but four of these were rather closely clumped along the western shore of Mexico and Central

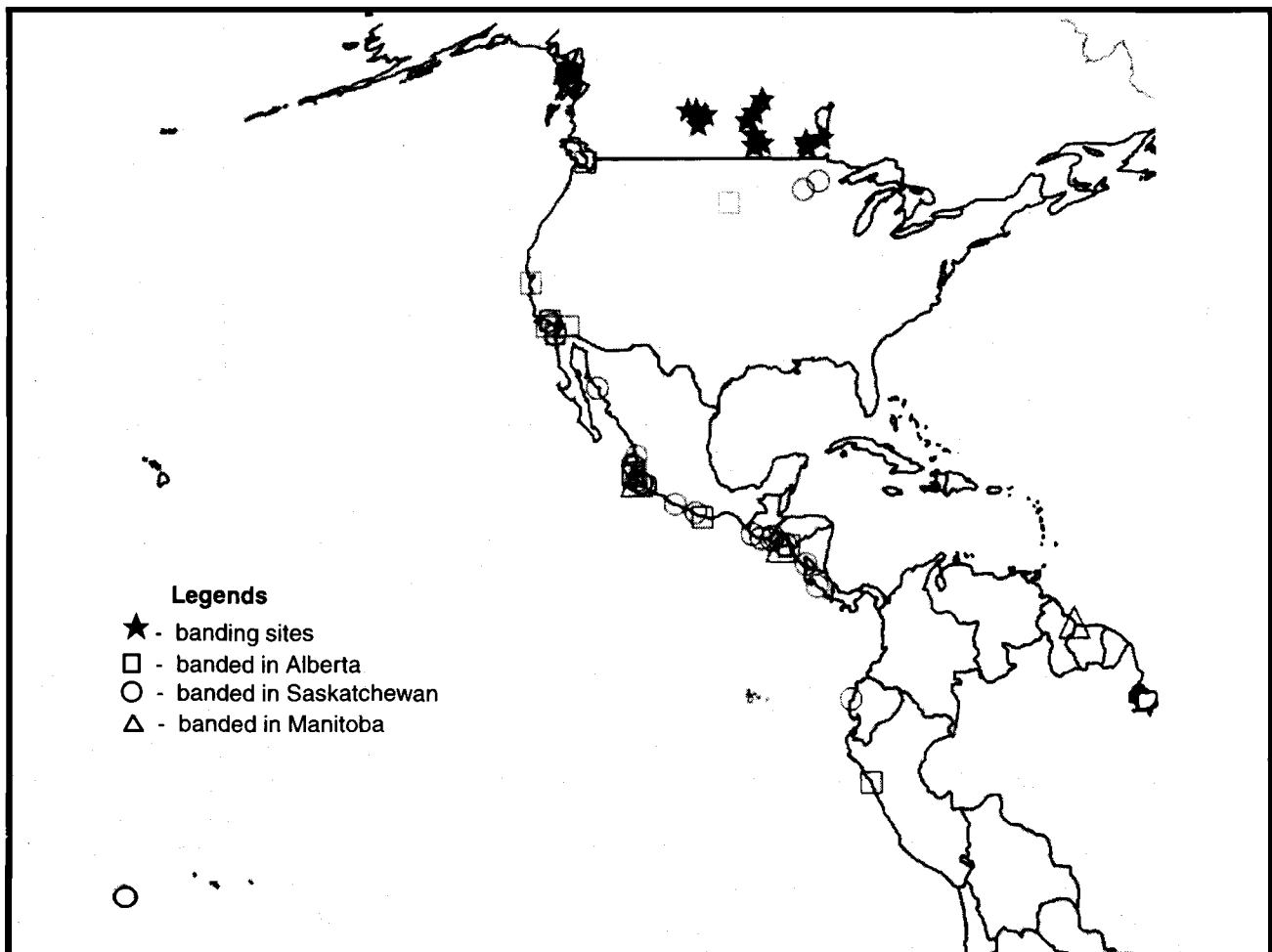


Fig. 1. Map of 42 Out-of-Province Recoveries of Common Terns Banded in Western Canada.

America, in six different states along the west coast of Mexico (15), El Salvador (5), Guatemala (3), and one each from Costa Rica and Nicaragua (Fig. 1). I mapped them with open symbols, to show better the overlapping. In the first migration south, Colima, Mexico, was reached by 14 Oct, with other recoveries in Mexico and locations farther south in each month from Nov through May. The latest recovery (possibly of a tern on its return trip north) was caught by hand in Guatemala on 13 May. Those banded in Saskatchewan and Alberta were restricted to the west coast of Central and South America, but a Manitoba tern went farther east, to French Guiana (on 5 Mar). The other three greatest straight-line distances were 6450 km from Saskatchewan to Ecuador (at 17 months); 7685 km from Alberta to Peru (letter dated 16 Jan), and 9435 km from Saskatchewan to the Cook Islands (farthest west, at four years of age; Houston 1963). The mean distance for these distant recoveries was similar for the three provinces: Alberta, 4936 km (n = 5), Saskatchewan, 4453 km (n = 21), and Manitoba, 4622 km (n = 3). Although only two-thirds of the direct-line distance from Finland to Australia, these records nevertheless represent major distances traveled from the Canadian prairie provinces.

ACKNOWLEDGMENTS

I thank Lucie Metras, biologist in the Banding Office in Ottawa/Hull, for providing the banding and recovery data by e-mail. Mary Gustafson, at the Patuxent banding office, who, in an act far above and beyond her call of duty, kindly looked up on microfilm the bander's reports to determine four exact localities within three Mexican states.

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