

failed to hatch.² However, I have recorded no case of hatching failure clearly attributable to this cause in Massachusetts. In four of my six study-nests described above, I removed the enclosing eggshell, but in the remaining two (one Common, one Roseate) I left it on and the chicks nevertheless hatched. More significantly, I have examined several hundred unhatched eggs in eight colonies but I have not yet found a dead embryo in an enclosed egg.

Hatch's observations suggest the possibility that egg enclosure may be more frequent among Common Terns in Manitoba than in Massachusetts. If this is confirmed by subsequent observation, it would be interesting to determine whether it is associated with unusually large differences in egg-size within clutches, or perhaps with an unusual failure of the parents to remove eggshells promptly. It would also be important to determine the level of embryonic mortality in these colonies and to discover whether it is associated clearly with egg enclosure,

or with other factors such as parental neglect or toxic chemicals. A relatively high incidence of hatching failure has been reported among Common Terns in Alberta (Switzer *et al.*^{4 5}; G. A. Fox, personal communication) and in Ontario (M. Gilbertson, personal communication).

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¹CULLEN, J. M. 1960. *Some adaptations in the nesting behaviour of terns.* Proc. XII Intern. Ornith. Congr. : 153-157.

²HATCH, D. R. M. 1973. *Hatched egg-shells covering Common Tern eggs.* Blue Jay 31: 91.

³NISBET, I. C. T. 1972. *Disaster years for terns.* Man and Nature, Dec. 1972: 16-21.

⁴SWITZER, B., V. LEWIN, and F. H. WOLFE. 1971. *Shell thickness, DDE levels in eggs, and reproductive success in Common Terns (Sterna hirundo), in Alberta.* Can. J. Zool. 49: 69-73.

⁵SWITZER, B., V. LEWIN, and F. H. WOLFE. 1972. *Effects of DDE on reproductive success in Common Terns (Sterna hirundo), at Chip Lake, Alberta.* MS. presented as exhibit USDA-RBTL-9 at public hearings on DDT (Environmental Protection Agency, Washington, D.C.).

CHAPMAN'S 1908 RECORD OF CALIFORNIA GULL NESTING IN MANITOBA

by MARTIN K. McNICHOLL*

Although the California Gull breeds in Saskatchewan and North Dakota, its status in Manitoba is unclear.^{3 4} In 1908 Frank M. Chapman referred to

California Gulls nesting at the Shoal Lakes in his "Camps and Cruises of an Ornithologist" (pp. 319, 345).¹ However, since Chapman gave no details and did not mention Herring Gulls there, Taverner included this record under "Herring Gull" and

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referred to the birds as Herring or California Gulls.¹² He then commented on the difficulty in distinguishing the species. The late A. G. Lawrence does not refer to Chapman's record in his writings on Manitoba birds, and essentially discounts it by referring to a sight record by C. G. Harrold on October 5, 1923, as the first authentic record for the province.⁷ Elsewhere he referred to another record by Harrold at Whitewater Lake on May 2 or 3, 1924, "and two later on in the month,"

and to one by Harold Mossop at St. Boniface (Winnipeg) on September 10, 1951.^{4 5 6}

The subsequent discovery of its nesting at Dog Lake in 1954 and 1955¹⁰ and of several additional nesting places from 1968 to 1970 in Lakes Winnipegosis and Manitoba and Pelican Lake^{2 13 14} establishes the California Gull as a nesting species in Manitoba,¹³ as predicted by Lawrence in 1924.⁴ However, apart from these breeding records and the above sight

records, few published records of California Gulls in Manitoba are available. Mossop saw one at Lockport on September 19, 1959, and later referred without details to having identified it "several times" in the province.^{8 9}

The new breeding records might tend to make Chapman's old record somewhat more plausible, although additional details would be needed to make it acceptable. In light of this ambiguity, it may be of interest to record that Chapman himself was apparently not prepared to vouch for the accuracy of his identification. A letter dated April 4, 1923, from Chapman to Lawrence is attached inside Lawrence's copy of Chapman's book, now housed in the library of the Delta Waterfowl Research Station. In the letter Chapman states, "I regret to say that I collected no specimens of the Gull which I found at Shoal Lake and cannot, therefore, confirm this identification . . ." Therefore, this record should be considered as invalid.

¹CHAPMAN, F. M. 1908. *Camps and cruises of an ornithologist*. D. Appleton Co., New York.

²EVANS, R. M., D. B. KRINDLE, and M. E. MATTSON. 1970. *Caspian Terns nesting near Spruce Island, Lake Winnipegosis, Manitoba*. Blue Jay. 28: 68-71.

³GODFREY, W. E. 1966. *The birds of Canada*. Nat. Mus. Can. Bull. No. 203, Biol. Ser. No. 73, Ottawa.

⁴LAWRENCE, A. G. 1924. *Observers' reports*. Chickadee Notes. No. 163. Winnipeg Free Press, May 8, 1924.

⁵LAWRENCE, A. G. 1924. *Uncommon records*. Chickadee Notes. No. 170. Winnipeg Free Press, June 26, 1924.

⁶LAWRENCE, A. G. 1951. *Migration reports*. Chickadee Notes. No. 1567. Winnipeg Free Press, June 1, 1951.

⁷LAWRENCE, A. G. 1954. *New nesting record for Manitoba*. Chickadee Notes. No. 1731. Winnipeg Free Press, July 23, 1954.

⁸MOOSOP, H. 1959. *Caspian Terns in migration*. Chickadee Notes. No. 245. Winnipeg Free Press, September 26, 1959.

⁹MOSSOP, H. 1968. *Mythical birds of historic value*. Chickadee Notes. No. 686. Winnipeg Free Press, March 23, 1968.

¹⁰MOYNIHAN, M. 1956. *California Gulls and Herring Gulls breeding in the same colony*. Auk 73: 453-454.

¹¹STEWART, R. E. 1971. *Check list of birds in North Dakota*. Prairie Nat. 3: 3-12.

¹²TAVERNER, P. A. 1919-1920. *The birds of Shoal Lake, Manitoba*. Ottawa Nat. 32: 137-144, 157-164; Can. Field-Nat. 33: 12-20.

¹³VERMEER, K. 1970. *Breeding records of Herring Gulls in Alberta and California Gulls in Manitoba*. Can. Field-Nat. 84:182.

¹⁴VERMEER, K. 1970. *Large colonies of Caspian Terns on Lakes Winnipeg and Winnipegosis, 1970*. Blue Jay 28: 117-118.



Herring Gull

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