## DLD WIVES LAKE, SASKATCHEWAN BIRD COLONY PERSISTS THROUGH DROUGHT

ALE HJERTAAS, Saskatchewan Parks, Recreation & Culture, 3211 Albert Street, gina, Saskatchewan. S4S 5W6

Isle of Bays, Old Wives Lake, in southestern Saskatchewan has one of the ovince's larger bird colonies. This isnd is a major nesting area for White licans with 1000 nests in 1957, 746 in 68, 1420 in 1976, 3084 in 1978, 3075 1980, 2617 in 1982 and 2184 in 1985. buble-crested Cormorant also nest here th 350 nests in 1957, 88 in 1968, 319 1976, 658 in 1978, 693 in 1980, 147 1982 and 96 in 1985.7 <sup>3 4</sup> In addition, island is home to a Great Blue Heron ony which had only 3 nests in 1957,3 in 1970,<sup>6</sup> but had 64 nests in 1976.<sup>4</sup> In 57, 2000 Ring-billed Gull pairs nested e along with 50 pairs of California lls and 1000 pairs of Common Terns.<sup>3</sup> abundance of gulls and terns has not en reported in more recent surveys.

Vater levels in Old Wives Lake have in declining for several years. In 1987 lake went completely dry during the inmer. In 1988, as there was almost no off in the spring, Old Wives Lake nained dry.

In 19 July 1988 Earl Wiltse and the nor flew over Isle of Bays to determine ether any colonial birds were nesting. observed both White Pelicans and at Blue Herons nesting but no gulls, s or cormorants.

pproximately 60 young White cans were on the island. They stayed very tight creche beside a tree clump reacted to our flights past them by ing in a tight group to the opposite of the tree clump. No adult pelicans observed, but as the young appeared too small to fly, adults must have been returning to feed them.

Production of 60 young pelicans is small for a colony which held 2000-3000 breeding pairs in recent years. Nonetheless, any level of production is surprising in light of the fact that the lake was dry for 2 years, as were many of the smaller wetlands in the Missouri Coteau.

There were seven active Great Blue Heron nests (one or more herons on the nest) in trees at the west side of the island's north point and four in willows on the east side of the point. The number of young present was not counted. By 19 July young herons should be large and ready to leave the nest. My assumption that each nest with a heron in it represents an active nest could be in error if some young had dispersed to adjacent nests.

Dunbar summarized reports of travel distances to foraging sites from White Pelican colonies as follows: Stum Lake, B.C. - 3-142 km; Great Salt Lake, Utah -48-160 km; Birch Lake, Alberta - 30-69 km; Chase Lake, North Dakota 50 to 307 km, with 90% of foraging within 127 km of the colony.<sup>2</sup>

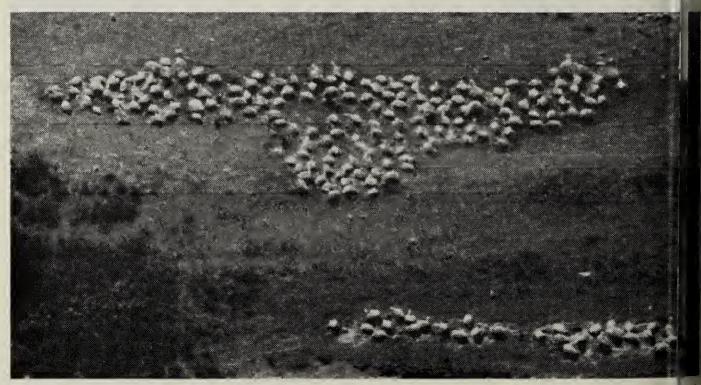
Great Blue Herons have been reported to fly an average of 3.7 km and a maximum of 20-24 km to feeding sites.<sup>5</sup>

Ile of Bays is 3.5 - 5 kms from the nearest points on the north, east and south sides of Old Wives'Lake, and 22 kms from the mouth of the Wood River on the lake's west side. The nearest lakes likely to provide fishing opportunity are Last Mountain Lake, the south end of which is 100 km from Isle of Bays, Buffalo Pound Lake and Thompson Lake which are 55 km from the colony and Avonlea Reservoir 60 km away. These lakes are all within the reported feeding ranges for White Pelicans, but well beyond the 20-24 km maximum one way travel for Great Blue Herons. The most likely feeding area for the herons would be small ponds and marshes in the Missouri Coteau, with perhaps an average flight of 10-15 kilometres. While many of the smaller ponds in the Couteau were dry in 1988, I did not determine how many basins retained water.

Nesting on islands in dry lakes is unusual. Islands are preferred as nest sites because they offer protection from terrestrial predators. The bare salt flats of the dry lake bottom may still be a significant predator barrier. Whether the decline in pelican numbers is due to predation, lack of food, or whether the dry lake simply did not provide the proper stimulus for most former colony members to breed is unknown.

<sup>1</sup> DOWD, E. M. & L. D. FLAKE 1985. Foraging habitats and movements of nesting Great Blue Herons in a prairie r ecosystem South Dakota. J. Field Orni ogy 56:379-87.

- <sup>2</sup> DUNBAR, D.L. 1984. The bree g ecology and management of w e pelicans at Stum Lake, British Colum I. Fish and Wildlife Report No. R-6, B.C. F istry of Environment, Surrey, B.C.
- <sup>3</sup> LAHRMAN, FRED 1957. Birds of e Isle of Bays, 1957. Blue Jay 15:106-1(
- <sup>4</sup> RONEY, KEITH 1978. Pelicans, rmorants, and Great Blue Heron in S (atchewan in 1976. Blue Jay 36:28-35.
- <sup>5</sup> THOMPSON, D. H. 1978. Fee g areas of Great Blue Heron and Egrets r ting within the floodplain of the Upper 3sissippi River. Proc. Colonial Wate d Group 2:202-213 (cited in Dowd and F 3, 1985).
- VERMEER, KEES and G. G. ANWEII 3.
  1970. Great Blue Heron colonies in S atchewan in 1970. Blue Jay 28:158-1
- <sup>7</sup> WEINS, T. W. 1987. White Pelicar id Double-crested Cormorant nest su yy 1985. SPRC Wildlife Population Man -ment Information Base Report #87-W /-11.



Nesting Pelicans at Old Wives Lake

Keith Roney, Sask. Museum H.