

**1990 MANAGEMENT PLAN FOR**  
**COMMON TERNS and RINGED-BILLED GULLS**  
**at LEECH LAKE, CASS COUNTY, MINNESOTA**

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## INTRODUCTION

The past sixty years have seen a well documented increase in large gulls throughout the Northern Hemisphere. The local populations of Great Black-backed, Herring, Ring-billed, and Laughing Gulls have exploded. During this same time populations of Common, Roseate, and Sandwich Terns have decreased.

This larger pageant is being played out in the Great Lakes region with Ring-billed Gulls and Common Terns. The increasing gull populations if not immediately, then within a few years come in contact with the Common Terns on the nesting grounds. The most common scenario is that gulls, not depending on open water to feed, arrive on the nesting grounds a few weeks before the Terns. The gulls are then able to set up territories on the traditional tern nesting sites. While common terns are very capable of defending their nests, they are not normally able to displace the gulls (Miller 1987).

The Minnesota Common Tern and Ring-billed Gull colonies are typical of those throughout the Great Lakes region. The terns are decreasing while the gull population expands (DNR unpublished report). The reason for this rapid increase in gulls is poorly understood, but the accompanying decrease in tern reproduction is obviously highly correlated. This is in no place more clearly evident than at Leech Lake, Cass County, Minnesota, where the gulls have almost entirely displaced the Common Terns (Table 1).

The Leech Lake tern colony is located on Gull Island, approximately 7 km north of Whipolt, Cass County, Minnesota. This 0.3 ha island is comprised of glacial rubble with one open sandy area beginning in a small

bay and extending into the center of the island. The island for the most part is devoid of vegetation.

The open sand on Gull Island (~0.1 ha) has been an active Common Tern nesting site for many years. In the 1960's and 70's Ring-billed Gulls began nesting in the rockier portions of the island. Since that time gulls numbers have increased dramatically, expanding beyond the rocks into the tern colony (Table 1). (See Miller 1987, for a complete review of this colony's history). By 1988 fewer than 150 pairs of Common Terns nested on Gull Island and none successfully fledged chicks (Miller Bosanko unpublished report).

It is evident from the history of the Leech Lake colony as well as from other Great Lakes colonies that without significant management, the Common Terns will soon be extirpated from their traditional nesting site. It is also probable that the management of terns will have to be long term, remaining in effect until the gull population decreases.

#### OBJECTIVES

The work on Leech Lake in 1990 will be divided into two parts. The first portion will center around controlling gull nesting on the north end of Gull Island and encouraging Common Terns to nest in their traditional areas. The second part of the study will consist of monitoring the new Tern Colony on Little Pelican Island.

#### PROCEDURES: TERN NESTING

A grid of monofilament line will be laid out in the traditional Common Tern nesting area. Common Terns reportedly have no trouble negotiating the monofilament grid, while Ring-billed Gulls are reluctant to fly near the line.

Table 1. A summary of population counts and estimates for Ring-billed Gulls and Common Terns of the Gull Island colony, Leech Lake, Minnesota.

YEAR	RING-BILLED GULL	COMMON TERN
1933		2000-3000 adults nesting in July
1960	1 nest with 1 pipped egg with dead embryo on 08 July	
1970	L. Oring reported "some gull nests"	
1971	6 nests, 3 early and 3 late; none of "late" nests hatched; at least 2 early nests seem to have produced young by 09 June	
1976	62 nests marked, 07 June and 08 July	676 nests marked, 08 and 21 June
1977	92 nests marked between 11 May and 9 August	566 nests on 15 June
1978	58 nests marked during breeding season	410 pairs on 21 June
1979	No estimates	No estimates
1980	No estimates	No estimates
1981	Many adults with 200+ chicks on 26 June	150+ nests on 26 June
1982	200+ nests on 29 June	150+ nests on 29 June
1983	291 active nests on 18 June	375 active nests on 18 June
1984	279 active nests on 19 June	459 active nests on 19 June
1985	110 active nests on 02 July	219 active nests on 02 July
1986	501 active nests on 14 June	242 active nests on 14 June
1987	321 active nests on 20 June	276 active nests on 20 June
1988	269 active nests on 20 June	142 active nests on 20 June
1989	~900 active nests on May 18	~20 active nests on June 20

The monofilament grid will be installed just after ice-out, approximately the first week of May, and will be removed in late July or early August. While the grid is in place it will be regularly monitored by Dr. Lewis Oring. Repair and adjustment trips will be made throughout the season as warranted. A sign will be posted on the island informing the public of the project.

During the third week of June a census will be conducted on both Little Pelican and Gull Island.

#### APPROXIMATE SCHEDULE

May 5-10	Gull nest removal and grid placement
May 26-30	Gull nest removal
June 20-24	Tern and Gull nest census
July -August	Grid removal

One other trip in May will be added if necessary.

#### REFERENCES

- Miller, J.H. 1987. A Study of Aggressive Interactions in a Mixed Larid Breeding Colony in Minnesota. Ph.D. Thesis, University of Minnesota.
- Miller, J.H., Bosanko, D.M. 1989. Status and Reproductive Success in 1988 of Common Terns and Ring-billed Gulls at Leech Lake, Cass County, Minnesota.
- Pfannmuller, L.A. 1989. February 1 Common Tern Meeting Report.

BUDGET

<u>Item</u>	<u>Rate</u>	<u>Amount</u>
Per Diem	\$32.00/ day for 10 days (2 people @ \$16/day/person)	\$320.00
Travel	2350 miles @ \$0.21/mile (Twin Cities to Walker = 235 miles five round trips)	\$493.50
Boat Rental	\$65/day for 10 days	\$650.00
Materials	Stakes and monofilament line	100.00
	Sign	100.00
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	TOTAL	\$1663.30