

WHITE PELICAN REPRODUCTION IN THE MOLLY ISLANDS  
BREEDING COLONY, YELLOWSTONE NATIONAL PARK

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Objectives

Compared to other North American white pelican, Pelecanus erythrorhynchos, breeding colonies, the Molly Islands Colony is a minor colony consisting of +450 adults (Lier and Behle, 1966; Diem and Condon, 1967; Sloan, 1973; Diem, 1976). Despite its small size, the colony is unique for these reasons: (1) it is the only white pelican breeding colony in a national park; (2) the location of the colony at an elevation of 7,733 ft (2,357 m) is the highest recorded for any breeding colony of the species; (3) discovered in 1890, the colony has had variable surveillance since 1917, with relatively intense monitoring since 1965; (4) the breeding population is composed of birds from both coasts of North America; and (5) the colony's nesting sites on the two Molly Islands change frequently with no predictable pattern. The major objective of this project is to continue monitoring changes in the reproductive success of the Molly Islands white pelican colony and to continue studies of the factors influencing those changes.

Procedures

Nesting and fledgling censuses continue to be taken from a boat 100-200 ft from shore. Because landing in the colony would be too much of a destructive disturbance, clutch data cannot be collected. Some errors in nest counting probably occur, however, the fledgling censuses are very accurate.

Results

Nesting and fledgling counts for the Molly Islands white pelican colony from 1977 through 1979 are presented in Table 1. The 1979 production of pelicans represented the highest number of fledglings recorded for this colony since 1945.

The pelican nesting effort was about average phenologically and appeared to be very well synchronized in terms of the few nesting aggregations and uniformity of size in the young birds.

Mortality of the juvenile pelicans appeared to remain low on Sandy Island with a total of 9 juvenile pelican carcasses observed on August 8. A mortality survey on Rocky Island was not possible because of the vulnerable state of young Double Crested Cormorants, Phalacrocorax auritus and Caspian Terns, Hydroprogne caspia.

For the first recorded time since 1952 Double Crested Cormorants nested on the Sandy Island. Two nests contained 3 partially naked young on August 8. On Rocky Island, 6 nests produced 11 Double Crested Cormorants. Another first was recorded with 21 nesting terns producing 11 fledglings on Sandy Island. The new Rocky Island nesting aggregation reported in 1978 was not observed in 1979.

The Molly Island water bird production was strongly correlated with the low lake water level, even during the snow-melt runoff. Adding to this was the mild weather of both Spring and Summer.

#### Acknowledgments

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Table 1. Numbers of white pelican nests and young fledged in the Molly Islands breeding colony, 1977-79.

Year	Location	Date	No. of Nests	No. of Nesting Aggregations	Date	Fledglings
1977	Rocky Island	7/7	22	3	8/11	302
	Sandy Island	7/7	195+	5		
1978	Rocky Island	7/9	24	1	8/15	230
	Sandy Island	7/9	167+	6		
1979	Rocky Island	6/27	78	2	8/8	418
	Sandy Island	6/27	172	2		