

## NEW AMERICAN WHITE PELICAN NESTING COLONY IN WYOMING

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Five comprehensive surveys of American White Pelican (*Pelecanus erythrorhynchos*) nesting colonies were made in the United States between 1931 and 1982 (Thompson 1933; Lies and Behle 1966; Sloan 1973a, 1982; Sidle et al. 1985). In 1979 Sloan (1982) found only 17 active breeding colonies in the United States. Although this number represented an increase of three nesting colonies since 1972, the overall breeding population had declined (Sloan 1973a, 1973b, 1982). Therefore, Sloan (1982) recommended that this species be classified as threatened. In the most recent survey, Sidle et al. (1985) reported 19 active breeding sites and a nesting population of 44,598 white pelicans in the United States, which was two additional nesting colonies and over 10,000 more breeding birds than reported by Sloan (1982). In contrast to the findings of previous surveys, Sidle et al. (1985) concluded that populations of white pelicans were stable or increasing in most areas of the United States.

On 24 May 1984, while conducting an aerial survey for colonial nesting waterbird breeding sites, I discovered a new white pelican nesting colony in Wyoming on an island in Pathfinder Reservoir (42° 23' N, 106° 56' W), about 70 km northeast of Rawlins, Carbon County. Two hundred forty-five pelican nests were counted when the colony was censused from the ground on 15 June. Only nests that contained eggs or young were recorded; the total thus obtained approximated the total number of nests in the colony. Most nests were in the late incubation or early hatching stages. The larger of the two groups of pelican nests contained 196 nests and was on the ground among Silver Sagebrush (*Artemisia cana*). Twenty-seven active Double-crested Cormorant (*Phalacrocorax auritus*) nests were associated with this group of breeding pelicans. The smaller group of pelican nests, about 50 m northeast of the main group, had 49 nests, which were on the ground below a small clump of Plains Cottonwoods (*Populus sargentii*) about 8 m tall. Other colonial nesting waterbirds on the island included the following: Double-crested Cormorant (126 active nests), Great Blue Heron (*Ardea herodias*; 38 active nests), California Gull (*Larus californicus*; 683 active nests), and Caspian Tern (*Sterna caspia*; 15-20 active nests).

On 25 July, 169 flightless, nearly full-grown pelican young were banded with U.S. Fish and Wildlife Service numbered aluminum bands. Another 38 young were counted and left unbanded. The nesting island was thoroughly searched for dead young pelicans on 24 August after most young had fledged, and one dead banded and three unbanded young were discovered. From these data, I calculated that 203 or about 0.83 young fledged per nesting attempt. Strait and Sloan (1974) determined from band-recovery data and reproductive success studies that a fledging rate of slightly less than one young per nest is probably required for population stability in white pelicans. Therefore, if 1984 was a representative year, reproductive success at Pathfinder Reservoir may be adequate for population maintenance. Of course, population stability needs to be determined over a period of several years.

Pathfinder Reservoir has a surface area of 8908 ha and storage capacity of 1.24 × 10<sup>9</sup> m<sup>3</sup>. Constructed in 1909 originally to store water for irrigation, it is subjected to fluctuating water levels throughout the white pelican's breeding period. The nesting island is located about 0.76 km from the mainland and near the mouth of Sand Creek. Although colonial waterbirds were first reported to be nesting here in 1982 by T. Varcalli (pers. comm.), white pelicans were not among the species found breeding. White

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pelicans probably first nested here no earlier than 1983. When I first visited the colony on 15 June, the area of the nesting island was about 12.1 ha but increased to nearly 23.6 ha by the time most pelicans had fledged on 24 August. The nesting island is 1788 m in elevation, and, when the reservoir reaches storage capacity, the relief of the island is 4.9 m at its highest point. The soil on the island is a light sandy loam. Dominant vegetation consists of Silver Sagebrush, Rubber Rabbitbrush (*Chrysothamnus nauseosus*), and Sand Dock (*Rumex venosus*). Other common plants found on the nesting island include Plains Cottonwood, Spanish Bayonet (*Yucca glauca*), and willow (*Salix* sp.).

The only other known nesting colony of white pelicans in Wyoming is on the Molly Islands, Yellowstone Lake, Yellowstone National Park (Schaller 1964, Diem and Condon 1967). In addition to this pelican colony, the nearest known nesting sites to Pathfinder Reservoir are Riverside Reservoir, Weld County, Colorado (Ryder and Grieb 1963, Miller 1982), Great Salt Lake, Box Elder County, Utah (Behle 1958, Knopf 1979) and LaCreek National Wildlife Refuge, Bennett County, South Dakota (McCrow 1974).

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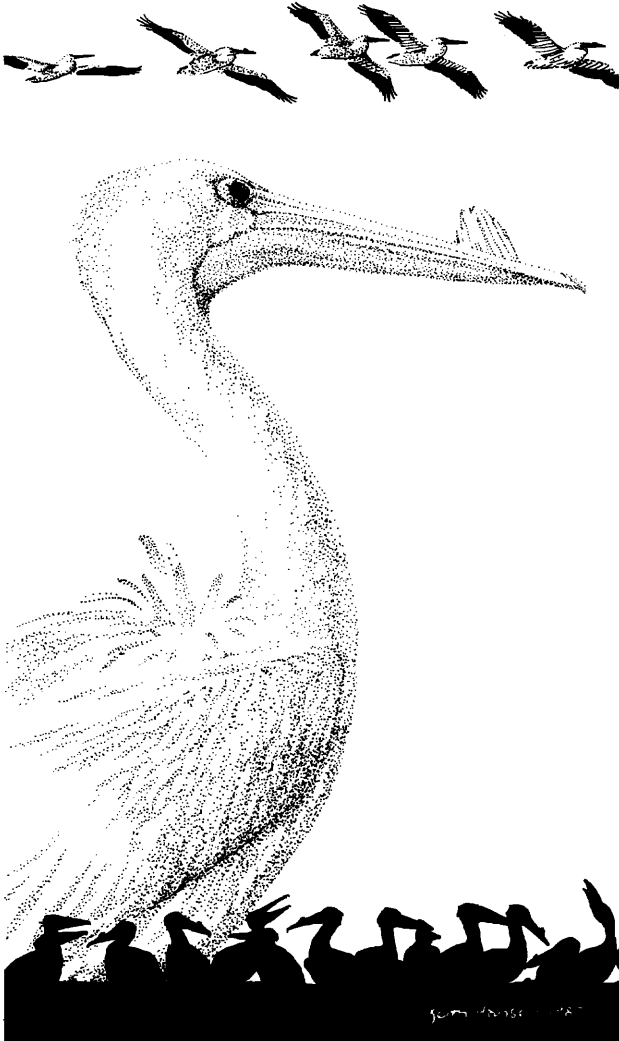
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American White Pelicans

Sketch by Keith Hansen