

Brown Pelican Nesting Stages Comeback at Santa Barbara Island

Expansion of California brown pelican nesting to Santa Barbara Island in the Channel Islands National Park is reported by the park's research scientist, Gary E. Davis. An endangered species, the California brown pelican has nested only occasionally on Santa Barbara Island during the past 100 years and never in the high numbers seen this year, Davis reports.

Historical information on sea bird nesting in the park was compiled during design of a long-term population dynamics monitoring protocol. The summary shown here, drawn primarily from that design study, shows pelican nesting activity in the park since 1884. In January 1985, Davis advises, pelicans began building nests on Signal peak, the highest point on Santa Barbara Island. They nested on both the steep sea cliffs along the southwestern flank of the peak and in the gently rolling swale on the north slope in low bushes of seashore bight. By mid-March the colony consisted of 600 to 800 active nests, with two or three chicks from one to nine weeks of age in nearly every nest. Adult pelicans still in breeding plumage on empty nests suggested that the colony would grow even more before the nesting season was over.

The park also contains the only consistently active California brown pelican colony in the United States – located on Anacapa Island. In the late 1960s and early 1970s, DDT concentrations in pelican prey reduced reproduction in the American population to disastrously low levels. In 1970 the entire population fledged only a single bird. With removal of the major sources of DDT, the pelicans began to recover. By early 1980s they were fledging more than 1,000 young a year.

Unusual oceanographic conditions associated with the El Nino event of 1983-84 apparently disrupted the pelican food web, Davis said, and productivity fell to less than 600 birds in 1984. The Anacapa colony is active again this year, but activity there started several weeks after the new colony on Santa Barbara Island. Monitoring of nesting attempts and fledging success will continue as part of the park's long-term natural resource monitoring program.

"It looks," said Davis, "as though the California brown pelican is making a successful comeback in Southern California, and that provides a somewhat unusual opportunity to investigate the ecological and genetic dynamics of a rapidly expanding population of large, long-lived animals."

A summary of California brown pelican nesting activity in Channel Island National Park, California.*

Year	NUMBER OF PELICAN NESTS			
	Anacapa Island	Santa Barbara Island	Santa Cruz Island Scorpion Rock	San Miguel Prince Island
1884	present	NS†	NS	NS
1887	NS	NS	none	NS
1895	NS	NS	none	NS
1897	NS	none	NS	NS
1898	present	NS	NS	NS
1909	NS	several	NS	NS
1910	500	NS	NS	5
1911	200	25	NS	NS
1912	200	several hundred	NS	none
1914	1000	NS	NS	NS
1916	1500	NS	NS	NS
1917	2000	NS	NS	NS
1920	5000	NS	NS	NS
1922	100's	NS	NS	NS
1927	2500 -	NS	NS	present
1928	500	NS	NS	NS
1929	present	NS	NS	NS
1930	200	NS	NS	100's
1935	2000	NS	NS	NS
1936	2000	NS	NS	NS
1939	2000	30	NS	200
1940	2000 -	NS		NS
1941	2000 -	NS		
1962	500			
1963	100-1000			
1964	100-1000	present		
1967	present	present		
1968	present	none		none
1969	750	NS		NS
1970	552	NS		
1971	540	NS	NS	
1972	149	none	112	
1973	247	NS		
1974	311	none	105	
1975	212	none	80	none
1976	417		none	none
1977	76			none
1978	210			NS
1979	1258			
1980	2147	97		
1981	2946	none	none	none
1982	1862	none	NS	NS
1983	1856	21	NS	NS
1984	628	none	NS	NS

*The primary source of this information was - Hunt, G.L. Jr., and T. Ingram, 1982: Summary of the historical data base for selected species of marine birds in Channel Islands National Park. Report to the National Park Service on CX 8000-1-0035 75 p

No records of pelican nesting on Santa Rosa Island were found. observations made in 1975-77 found no nesting in that period.

†NS - No samples taken no observations recorded.