A Brown Pelican Roost Site Atlas for Northern and Central California



FINAL REPORT
Prepared for the California Department of Fish and Game
Office of Spill Prevention and Response



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All photographs used in this document were taken by D. Jaques.



Moss Landing Salt Ponds, 1986

EXECUTIVE SUMMARY

This atlas defines and maps the traditional communal roost sites used by the California Brown Pelican (*Pelecanus occidentalis californicus*) on the northern and central California coast. Non-breeding pelican survey data collected over the 22 year period, 1986-2007, have been collated from various sources, and compiled in this document to identify and characterize use of coastal roost sites. The atlas is intended to facilitate oil spill response and planning efforts with respect to locating concentrations of Brown Pelicans for protective strategies, search and rescue, and natural resource damage assessment.

Suitable communal roost sites are essential habitat for Brown Pelicans at all times of year and throughout the migratory range. Identification and protection of the most important roost sites was listed as a goal in the California Brown Pelican Recovery Plan. In addition to comprehensive identification of these sites, the data presented in this document provide a quantitative basis for evaluating their relative seasonal, and historical importance within a broad and intensively used region of the U.S. Pacific Coast range. The location-specific database establishes a framework for future Brown Pelican monitoring efforts, and will hopefully aid in general conservation and management of the species and its non-breeding habitat.

One hundred ninety-six roost sites were identified in this document. Each site has been geo-referenced and a numbering system has been developed to create a consistent approach to cataloging information for these locations. Google Earth images have been used to identify roost site boundaries and provide a visual reference for each site. The pelican database is GIS-ready and meshes with existing basemaps used by the California Department of Fish and Game Office of Spill Prevention and Response (OSPR). Land jurisdiction, habitat type, and night roost status are identified in the summary tables. Statistically valid mean counts could not be derived from the collated dataset due to the wide variation in sampling methods and survey type. The peak pelican count at each location is highlighted to indicate known potential use of a given roost. Tables developed for each location summarize peak-use data over two decades and across four seasons, providing a format to begin tracking long term changes in seasonal and decadal pelican use of individual sites. The tables also point out gaps in the database. General information on ground-based access and site viewing are provided as text, along with a list of known management concerns at particular roosts.



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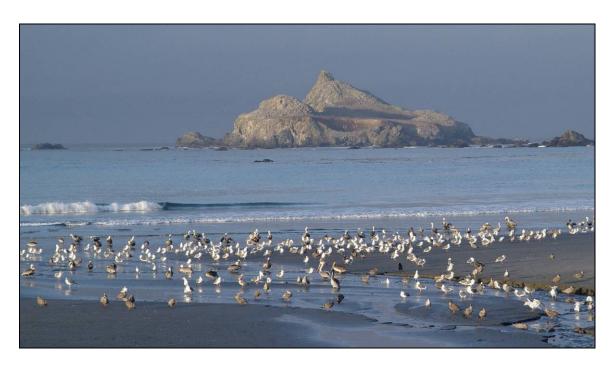
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Brown Pelicans at Marhoffer Creek, Del Norte County. Major roost site at Castle Rock NWR in the background.

COMMUNAL ROOSTING BACKGROUND

The California Brown Pelican breeds in southern California and Mexico and migrates along the Pacific Coast north as far as British Columbia, Canada. Pelicans are most abundant in the northern portions of their non-breeding range in summer and fall, but can be found in central California year-round. The Brown Pelican is a coastal seabird species that does not stray far from mainland or island shores during any period of its annual cycle. Because their plumage is wettable; regular contact with terrestrial habitat is essential to the ability to preen, and restore plumage for insulation and flight efficiency. Oiled pelicans are likely to rely heavily on roosts to avoid hypothermia.

Brown pelicans are communal at all times of the year, and roost together at traditional, and sometimes, novel locations as they move up and down the coast. Communal roosting in this species appears to have evolved in relation to predator detection and avoidance, social facilitation of food finding, and development of learned social skills. Roost site selection includes factors such as proximity to prey resources, buffers to predation and disturbance, favorable microclimate, and tradition. Many sites that are used during the day are not suitable for roosting at night, generally because the habitat does not provide sufficient predator protection. Aggregations of pelicans at traditional nocturnal roosts in California often number in the thousands. Searches for oiled birds at night roosts can add efficiency to efforts to document damages to free-flying pelicans in a spill region.

Communal roost sites are essential habitat for the Brown Pelican, and the most important sites can be compared to major staging areas used by wintering waterfowl. Unlike management efforts for wintering waterfowl, no network of refuges has been established with the concept of providing safe non-breeding habitat for this coastal seabird. Pelicans come in contact with a wide range of coastal habitat types, both modified and natural, in California. They require use of the same narrow coastal band that attracts thousands of people to the shores of the State, and interface with varying degrees of human activity, contaminants, development, and other natural and anthropogenic threats. Pelicans need to conserve energy due to the relatively ephemeral nature of their prey resources, their large body size, and heavy wing-loading. The cost of flapping flight associated with responding to disturbances is expensive, so these birds generally learn to avoid sites that are chronically disturbed. Offshore rocks serve as the primary roost sites for pelicans in northern and central California, but estuaries, harbors, beaches, and bluffs are also used. Identification and protection of the most important roost sites was listed as a goal in the Brown Pelican Recovery Plan. Critical habitat was never designated for this species.

This document comes at a time the California Brown Pelican is expected to shift in status from a federally protected Endangered Species to that of a Migratory Bird. The Migratory Bird Treaty Act does not ensure protection of non-breeding habitat, so it will be incumbent upon dedicated resource managers and other stakeholders to safeguard critical, traditional communal roost sites throughout the bird's range without a regulatory framework for doing so. The pelican will always be a species of high public value and concern in the event of an oil spill. Spill response protocols that include consideration of pelican roosting behavior and distribution may lead to increased pelican survival.

SURVEY AREA AND METHODS

Geographic Area

This atlas includes data for the California coastline, offshore rocks, islands, and estuaries from Point Conception $(34^{\circ}26'53"\ N,\ 120^{\circ}28'18"\ W)$ to the Oregon border $(41^{\circ}59'45"\ N,\ 124^{\circ}12'39")$, with the exception of San Francisco Bay. San Francisco Bay has generally not been included in pelican monitoring efforts and as such, very few records were available in our databases.

Data Sources and Handling

Data used to define roost sites, develop the database and summary tables were collected by ground-based, boat, and aerial surveys over the 22 year period, 1986 to 2007, primarily by Crescent Coastal Research, Humboldt State University, Pacific Eco Logic, PRBO Conservation Science, University of California Davis, U.S. Fish and Wildlife Service, and U.S. Geological Survey (D.L. Jaques, unpubl. data; H.R. Carter, unpubl. Data; PRBO unpubl. data). There has never been any regular long-term monitoring effort directed at non-breeding pelicans in the State of California, and as such, no standardized monitoring protocol or system of database management existed prior to development of this document.

Aerial survey data that were derived from visual estimates rather than aerial photo counts were generally not included in the database. Aerial estimates of numbers of pelicans at large roosts, have proven to be subject to a great deal of inaccuracy, regardless of the skill or experience of the observer. Multiple ground-based counts at a given roost made on the same day were used in the database if the counts were at least one hour apart.

Definition of Roosts and Geo-referencing

A roost site was defined based on a combination of factors including total numbers of pelicans using a given location, recurrent use, geographic features, general habitat type, and previously established seabird colony boundaries. The boundaries of most roost sites were defined by distinct geographic features such as an offshore rock, river mouth, or breakwater at the mouth of a harbor. In contrast, other areas, e.g. relatively long homogeneous stretches of coastline or regions within bays, were sometimes delineated with brackets and ascribed roost site status if pelican use in that area was typically low and variable with respect to exact roost location. By defining such areas as unique monitoring units, changes in use patterns over time can still be evaluated without adding overly-cumbersome, relatively insignificant, detail to survey databases. The designation of a roost site in these kinds of situations became somewhat subjective and may be revised over time.

Latitude and longitude of each roost site was established by cross-referencing historic survey maps and survey waypoints with photographic images on Google Earth. The coordinates of each site were marked as a point in Google Earth and imported directly into a Dbase file in decimal degrees. The point used to identify the roost represents the

center or primary roost area of a discreet site, such as an offshore rock or river mouth. In the case of a larger, bracketed area, representing a length of coastline, the point was taken at some site within the bracket where pelicans were known to occur. The extent of the bracketed area was depicted by lines in the printed maps, but these boundaries are not indicated in the database.

Limitations of the Database and Future Revision

The database was developed to include as many records as possible for each roost and as such was not compiled in a manner consistent with deriving statistics such as mean seasonal abundance at a particular site. Data were derived from a wide range of sources, ranging from annual snapshot counts collected during broad aerial survey efforts, to focused observations at specific roosts where multiple counts were made on a given day to evaluate such factors such as diurnal patterns or human disturbance effects. Attempts to develop means from the collated database would lead to erroneous results and represent a misuse of the product.

Most non-breeding brown pelican surveys have been conducted during the peak regional abundance periods in summer and fall. The absence of counts for many sites during spring and winter does not necessarily indicate that pelicans were not present during that period, but that data were not available for this product. More pelican distribution and abundance data are needed for the winter period when most oil spills occur

It was not possible to collate all of the pelican survey data available for this project due to budget constraints. The most recent data was prioritized over the historic data. Additional records for the period 1986-1996 may be added to the dataset and summary tables in subsequent versions of this cataloging effort. In addition, records from other sources could be added to the database in the future. There is clearly a dearth of information available here for some sites in northern California, particularly in Sonoma and Mendocino Counties. Accurate assessment of potential pelican use of those areas with very small sample sizes can not be made using this product, but presumably, the most important sites are at least mapped here. It is hoped that recognition of gaps in the data will lead to focused observations in some regions, as well as more routine, comprehensive, pelican survey efforts overall.

The numbering system used in this atlas was devised to allow sequential incorporation of new roosts within each County as they are added to the system. Our intent is that any newly identified sites be coded as decimal numbers between the existing whole numbers of the established roosts on either side of the new point. As new data accumulates and changes in pelican use patterns potentially occur, the numbering system could be revised and set back to all whole numbers as long as the old number and original geo-reference point are retained for cross referencing.

SUMMARY RESULTS

One hundred ninety six communal roost sites were derived from more than 2,000 brown pelican roost count records collated for this atlas. Approximately half of the data points were collected by aerial survey and half were collected from ground or boat-based surveys. The number of records from each 11-year period was roughly evenly split; 43% were from 1986-1996, and 57% were from 1997-2007. Numbers of records in the database varied greatly by County; this reflected both uneven sampling and uneven use of the California coast by pelicans. Data collected during the periods 1986-88 and 1997-2000 accounted for 78% of all observations.

Jurisdiction over pelican roost sites fell into four primary ownership categories (Fig. 1). The Bureau of Land Management (BLM) was responsible for about half of all sites, followed by the California Department of Parks and Recreation (CDPR), and the National Park Service (NPS). Coordination and partnerships with these federal and state agencies will be important to OSPR when dealing with spills that affect pelicans. Private entities owned 9% of all roost sites. Resource management agencies should consider and attempt to alleviate nuisance issues, if warranted, at privately owned properties that consistently harbor large numbers of pelicans.

Most of the largest pelican roost sites occurred within the boundaries of the National Marine Sanctuaries in Central California; the Gulf of the Farallones and Monterey Bay (Fig. 2). This likely reflects the nexus of rich foraging areas and high quality roost sites available in that region. Nine roost sites stood out as the largest, most important roosts in northern and central California based on the data collated for the atlas. From south to north, the sites were Pismo Rock, Shell Beach Rocks, Bird Island Point Lobos, Salinas River Mouth, Moss Landing Wildlife Area, Año Nuevo Island, Southeast Farallon Island, Bird Island Point Bonita, and Castle Rock National Wildlife Refuge. Each of these sites harbored more than 1,000 pelicans on more than one survey. Several of these roost sites are subject to perturbations from human disturbance or habitat alteration. Review or development of management plans with respect to pelicans at these locations would be a good first step toward a coordinated protection plan for California's key pelican roosts.

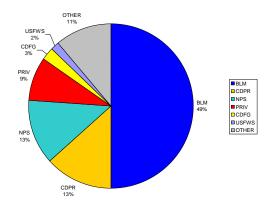


Figure 1. Ownership of pelican roost sites in northern and central California.

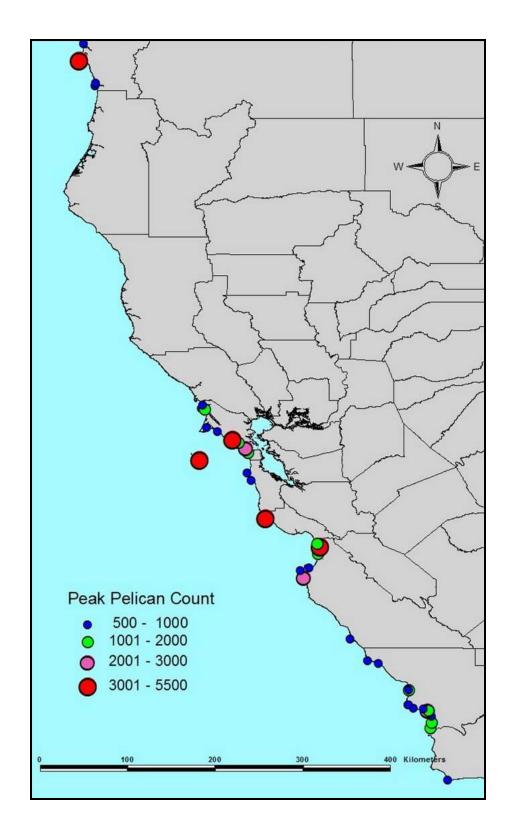


Figure 2. Map of Brown Pelican roost sites with peak counts greater than 500 birds on the northern and central California coast.

NAME OF ROOST

Roost No: Two letter county code and number within county from

south to north

USFWS Colony No: Seabird colony number from Carter et al., 1992, when applicable

Habitat: Primary roost habitat type

Lat, Long in decimal degrees

Map No. Google roost photo number in document

Owner: Code for owner of roost site, see data dictionary

Manager: Code for manager of roost site, see data dictionary

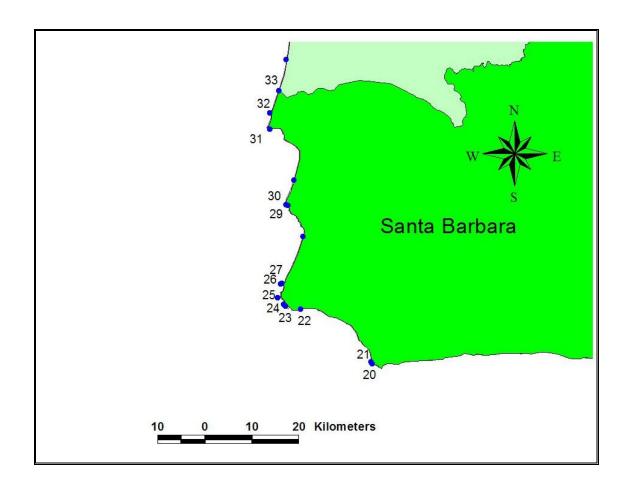
Night Roost: Indicates known

nocturnal use



	High Counts of Pelicans in the Database by Season and Time Period										
	Spring: M	arch,	Summer: June,		Fall: September,		Winter:				
	April, M	ay	July, Augus	t	October , Noven	ıber	December, January,				
							February				
Time	Total:	N: #	Total	N	Total	N	Total	N			
Period	numbers of	of									
	pelicans	counts									
1986-	ND = no	0	XXX	X	XXX	X	ND	0			
1996	data			,							
			(date of high		(date of high						
			count)		count)						
1997-	XXX	X	XXX	X	XXX	X	XXX	X			
2007	(date)		(date)		(date)		(date)				
	High Count	Greates	t count in database	е	Total Counts in Database: Sum of N's in						
					table						

SANTA BARBARA COUNTY



Santa Barbara County Summary							
County Number	5						
Number of Roost Sites	33						
Number of Confirmed Night Roosts	1						
Roost Sites with known management issues	11						
Roost Sites with >1,000 pelicans	1: Santa Maria River Mouth						
Roost Sites with >500 pelicans	1: Point Conception						

POINT CONCEPTION

Roost No: SB 20.0 34.4497, -120.471 Map No. 1 USFWS Colony No: 501-013 Owner: USCG Manager: USCG

Habitat: Offshore Rock and Mainland Shore Night Roost: Unknown



	High Counts of Brown Pelicans at Point Conception											
	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	104	3	431	2	ND	0				
1996			(6/11/92)		(9/28/93)							
1997-	12	1	113	1	150	3	712	4				
2007	(5/24/01)		(7/17/01)		(10/2/97)		1/15/01					
	High Count	: 712		Total Counts in	n Datal	base: 14						

Access and Site Viewing: All data are from aerial surveys. No tested shoreline observation points. Site is a USCG Light Station. Permission to access required.

Management Concerns: Restricted public access has a positive effect, any changes to this condition may degrade roost habitat. Effects of USCG Operations unknown.

POINT CONCEPTION TO VANDENBERG

Roost No: SB 21.0 34.4535, -120.473 Map No. 2 USFWS Colony No: 501-013 Owner: CA Manager: CSLC

Habitat: Beach Night Roost: Unsuitable



High Counts of Brown Pelicans at Point Conception to Vandenberg										
	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N		
Period										
1986-	ND	0	ND	0	ND	0	ND	0		
1996										
1997-	76	2	212	1	123	1	ND	0		
2007	(5/24/01)		(7/17/01)		(9/12/2000)		1/15/01			
High Count: 212 Total Counts in Database: 4										

Access and Site Viewing: All data are from aerial surveys. No tested ground access points. Public entry to the beach is available at the Jalama Creek mouth.

Management Concerns: None known.

BOATHOUSE JETTY VANDENBERG

Roost No: SB 22.0 34.5544, -120.608 Map No. 3 USFWS Colony No: None Owner: USAF Manager: USAF

Habitat: Jetty Night Roost: Unlikely



	High Counts of Brown Pelicans at Boathouse Jetty Vandenberg										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	58	1	ND	0			
1996					(11/17/1986)						
1997-	9	1	0	1	191	5	11	1			
2007	(5/24/01)		(8/26/99)		(9/12/2000)		1/17/01				
	High Count: 191 Total Counts in Database: 9										

Access and Site Viewing: Vandenberg Air Force Base is a restricted area. Permission from the USAF is required to access this site from the ground; viewpoints also subject to approval.

Management Concerns: USAF Operations. Restricted public access has a positive effect, any changes to this condition may degrade roost habitat.

ROCKY POINT SOUTH

Roost No: SB 23.0 34.5606, -120.636 Map No. 4 USFWS Colony No: 501-012 Owner: USAF Manager: USAF

Habitat: Mainland Cliff or Rocky Shoreline Night Roost: Unlikely



	High Counts of Brown Pelicans at Rocky Point South											
	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	71	1	24	2	229	4	69	1				
2007	(5/24/01)		(7/13/2000)		(9/10/1998)		1/12/00					
	High Count	: 229	Total Counts in	Datal	base: 8							

Access and Site Viewing: Vandenberg Air Force Base is a restricted area. Permission from the USAF is required to access this site from the ground; viewpoints also subject to approval.

Management Concerns: USAF Operations. Restricted public access has a positive effect, any changes to this condition may degrade roost habitat.

ROCKY POINT

Roost No: SB 24.0 34.5639, -120.64 Map No. 5 USFWS Colony No: 501-012 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Confirmed



	High Counts of Brown Pelicans at Rocky Point										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	86	1	ND	0			
1996					11/17/1986						
1997-	40	1	8	2	313	6	316	1			
2007	(5/20/99)		(7/13/00)		(10/4/1997)		1/17/01				
	High Count	: 316			Total Counts in	Datal	base: 11				

Access and Site Viewing: Vandenberg Air Force Base is a restricted area. Permission from the USAF is required to access this site from the ground; viewpoints also subject to approval.

Management Concerns: USAF operations. Restricted public access has a positive effect, any changes to this condition may degrade roost habitat.

POINT ARGUELLO

Roost No: SB 25.0 34.5762, -120.652 Map No. 6 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Point Arguello											
	Spring	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	110	1	ND	0	ND	0				
1996			(7/21/87)									
1997-	ND	0	79	2	165	8	158	1				
2007			(7/17/01)		(10/1/97)		1/15/02					
	High Coun	t: 158			Total Counts i	n Datal	base: 12					

Access and Site Viewing: Vandenberg Air Force Base is a restricted area. Permission from the USAF is required to access this site from the ground; viewpoints also subject to approval.

Management Concerns: USAF Operations. Restricted public access has a positive effect, any changes to this condition may degrade roost habitat.

DESTROYER ROCK

Roost No: SB 26.0 34.6029, -120.646 Map No. 7 USFWS Colony No: 501-009 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Destoyer Rock										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N					
Period											
1986-	ND	ND 0 223 1 ND 0 ND 0									
1996			(7/21/87)								
1997-	8	1	0	1	91	6	6	1			
2007	(5/24/01)	5/24/01) (8/26/99) (10/1/97) 1/15/01									
	High Count	: 223			Total Counts in	n Datal	base: 10				

Access and Site Viewing: Vandenberg AFB is a highly restricted area. Special permission is required to access this site from the ground.

Management Concerns: None known.

POINT PEDERNALES

Roost No: SB 27.0 34.6036, -120.643 Map No. 8 USFWS Colony No: 501-010 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Point Pedernales											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND	ND 0 ND 0 ND 0 ND 0										
1996												
1997-	ND	0	101	1	3	1	11	1				
2007		(7/17/01) (9/12/00) 1/15/02										
	High Count	: 101			Total Counts in	n Datal	base: 3					

Access and Site Viewing: Vandenberg Air Force Base is a restricted area. Permission from the USAF is required to access from the ground.

Management Concerns: USAF operations. Restricted public access has a positive effect, any changes to this condition may degrade roost habitat.

SANTA YNEZ RIVER MOUTH

Roost No: SB 28.0 34.693, -120.61 Map No. 9 USFWS Colony No: None Owner: SB Manager: SB

Habitat: River Mouth Night Roost: Unlikely



	High Counts of Brown Pelicans at Santa Ynez River Mouth											
	Spring	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N										
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	31	1	79	2	46	1	ND	0				
2007	(5/24/01)		(7/17/01)		(9/10/98)							
	High Count	: 79			Total Counts in	n Datal	pase: 3					

Access and Site Viewing: Public access is available from the south side of the river mouth at Ocean Beach County Park. Portions of the beach are closed during Snowy Plover nesting season.

Management Concerns: Human disturbance from public recreation.

PURISMA POINT SOUTH

Roost No: SB 29.0 34.7546, -120.635 Map No. 10 USFWS Colony No: 501-021 Owner: USAF Manager: USAF

Habitat: Mainland Cliff or Rocky Shoreline Night Roost: Unknown



	High Counts of Brown Pelicans at Purisma Point South											
	Spring	Spring Summer Fall Winter										
Time	Total											
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	0	1	52	6	ND	0				
2007			(8/26/99)		(10/02/97)							
	High Coun	t: 52			Total Counts in	n Datal	base: 7					

Access and Site Viewing: Vandenberg Air Force Base is a restricted area. Permission from the USAF is required to access from the ground. Roost area lies within sensitive Least Tern nesting habitat.

Management Concerns: USAF Operations. Restricted public access has a positive effect, any changes to this condition may degrade roost habitat.

PURISMA POINT DUNE

Roost No: SB 30.0 34.7535, -120.632 Map No. 11 USFWS Colony No: 501-021 Owner: USAF Manager: USAF

Habitat: Mainland Dune Cliff Night Roost: Unknown



	High Counts of Brown Pelicans at Purisma Point Dune											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total										
Period												
1986-	ND	ND 0 216 1 406 1 ND 0										
1996			(7/21/87)		(11/17/86)							
1997-	64	3	16	1	486	5	109	2				
2007	(5/20/99)	(5/20/99) (7/17/01) (10/04/97) (1/15/02)										
	High Count	: 486			Total Counts in	Datal	base: 13					

Access and Site Viewing: Vandenberg Air Force Base is a restricted area. Permission from the USAF is required to access from the ground. Roost area lies within sensitive Least Tern nesting habitat.

Management Concerns: USAF Operations. Restricted public access has a positive effect, any changes to this condition may degrade roost habitat.

LION ROCK POINT SAL

Roost No: SB 31.0 34.89992, -120.666 Map No. 12 USFWS Colony No: 501-008 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Lion Rock Point Sal										
	Spring Summer Fall Winter										
Time	Total	N	Total	Total	N	Total	N				
Period											
1986-	ND	ND 0 0 1 210 1 ND 0									
1996			(7/21/87)		(11/17/86)						
1997-	129	2	27	3	140	3	408	3			
2007	(5/24/01)	(5/24/01) (7/17/01) (9/10/98) (1/15/02)									
	High Count	: 408			Total Counts in	Datal	base: 13				

Access and Site Viewing: Aerial survey is best. Distant view from Point Sal Road.

Management Concerns: None known.

MUSSEL POINT

Roost No: SB 32.0 34.9297, -120.666 Map No. 13 USFWS Colony No: 501-017 Owner: SB Manager: CDPR

Habitat: Cliff or Rocky Shoreline Night Roost: Unlikely



	High Counts of Brown Pelicans at Mussel Point										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	104	3	ND	0	ND	0			
1996			(6/11/92)								
1997-	2	1	113	1	70	3	ND	0			
2007	(5/22/00)		(7/17/01)		(9/12/00)						
	High Count:	113		-	Total Counts in	Datal	base: 8	•			

Access and Site Viewing: All data collected by aerial survey. No tested ground view.

Management Concerns: None known.

SANTA MARIA RIVER MOUTH

Roost No: SB 33.0 34.9719, -120.649 Map No. 14 USFWS Colony No: 501-017 Owner: SL Manager: CDPR

Habitat: River Mouth Night Roost: Unlikely

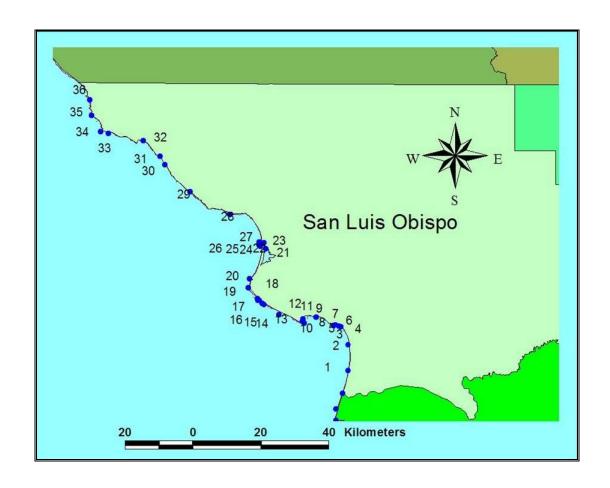


	High Counts of Brown Pelicans at Santa Maria River Mouth										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	ND 0 877 3 193 2 ND 0									
1996			(8/28/86)		(11/07/86)						
1997-	4	1	303	3	1,098	3	1	1			
2007	(5/22/00)	(5/22/00) (7/13/00) (9/12/00) 1/17/01									
	High Count	1,098	3		Total Counts in	Datal	base: 13				

Access and Site Viewing: The south side of the river mouth can be accessed by walking from the public parking lot at the end of West Main Street.

Management Concerns: Human disturbance from public recreation.

SAN LUIS OBISPO COUNTY



San Luis Obispo (County Roost Summary
County number:	6
Number of roost sites:	36
Number of confirmed night roosts	4
Roost sites with known management	14
issues:	
Roost sites with >1,000 pelicans	5: Oso Flaco Creek Mouth, Pismo Rock,
	Shell Beach Rocks, Shell Beach Rocks
	Margo Dodd, Morro Bay North Jetty
Roost sites with 500-1,000 pelicans	10: Pismo Rock Area, Fossil Point Area,
	Pecho Rock, Lion Rock Diablo Canyon, Pup
	Rock, Morro Bay South Spit, Morro Bay
	South Jetty, Morro Rock, San Simeon Bay
	Rocks, Piedras Blancas Rock

OSO FLACO CREEK MOUTH

Roost No: SL 1.0 35.0319, -120.635 Map No. 15 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: Creek Mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Oso Flaco Creek Mouth											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N										
Period												
1986-	ND	ND 0 ND 0 ND 0 ND 0										
1996												
1997-	ND	0	47	1	1049	1	ND	0				
2007	(7/13/00) (9/12/00)											
	High Count	t: 1,04 9)		Total Counts in	Data	base: 13					

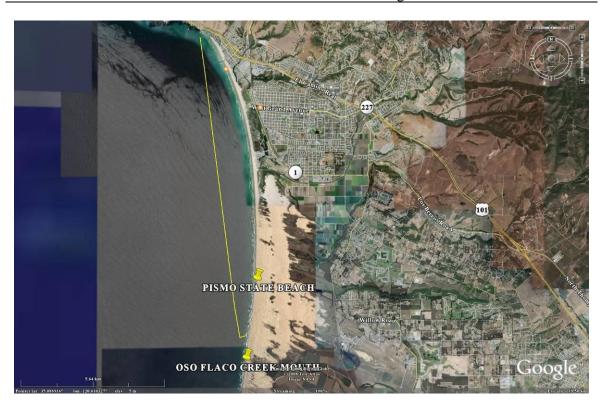
Access and Site Viewing: All data are from aerial surveys. Beach access is available from Oceano Dunes Vehicular Recreation Area at the end of Oso Flaco Road.

Management Concerns: None known. Not a traditional communal roost area.

PISMO STATE BEACH

Roost No: SL 2.0 35.0599, -120.63 Map No. 16 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: Beach And Creek Mouth Night Roost: Not Suitable



High Counts of Brown Pelicans at Pismo State Beach											
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	ND	0	750	1	ND	0			
2007					(9/12/00)						
	High Count	t: 750		Total Counts in Database: 1							

Access and Site Viewing: There are numerous access points at north end of the state beach.

Management Concerns: None known. Not a traditional communal roost area.

PISMO ROCK

Roost No: SL 3.0 35.1496, -120.659 Map No. 17 USFWS Colony No: 477-036 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Confirmed



High Counts of Brown Pelicans at Pismo Rock											
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	1,253	8	912	23	ND	0			
1996			(7/25/87)		(11/7/1986)						
1997-	90	2	544	7	667	6	96	2			
2007	(5/22/00)		(8/26/99)		(9/07/00)		(1/16/2002)				
	High Count	3	Total Counts in Database: 48								

Access and Site Viewing: View the north side of the rock from public access provided by hotel to the north of the rock off Price Street. View south side of roost from public access on peninsula at hotel just south of the rock.

Management Concerns: Human disturbance from divers landing on the rock has been observed but may be rare. Helicopter disturbance has also been observed.

PISMO ROCK AREA

Roost No: SL 4.0 35.1485, -120.654 Map No. 18 USFWS Colony No: 477-036 Owner: BLM Manager: BLM

Habitat: Offshore Rocks and Mainland Cliffs

Night Roost: Unknown



High Counts of Brown Pelicans at Pismo Rock Area											
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	271	6	135	12	ND	0			
1996			(7/24/87)		(9/1/86)						
1997-	4	1	153	2	805	4	72	1			
2007	(5/22/00)		(7/17/01)		(9/12/00)		(1/16/2002)				
	High Count	: 805		Total Counts in Database: 26							

Access and Site Viewing: View from various overlooks associated with public access points and parking lots at hotels at either end of the roost area along on Price Street.

Management Concerns: Human disturbance from public recreation, fishing, increasing development and changes in coastal access.

PISMO ROCK AREA BEACHES

Roost No: SL 5.0 35.1485, -120.654 Map No. 19 USFWS Colony No: None Owner: CA Manager: CSLC

Habitat: Beach Night Roost: Not Suitable



High Counts of Brown Pelicans at Pismo Rock Area Beaches										
	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N		
Period										
1986-	ND	0	440	2	465	7	ND	0		
1996			(7/31/86)		(9/1/86)					
1997-	ND	0	255	1	ND	0	ND	0		
2007			(7/17/01)							
	High Coun	t: 465		Total Counts in Database: 10						

Access and Site Viewing: View from various overlooks associated with public access points and parking lots at hotels at either end of the roost area along on Price Street.

Management Concerns: Human disturbance from public recreation, increasing development and provision of stairways to formerly isolated beaches.

SHELL BEACH ROCKS

Roost No: SL 6.0 35.1512, -120.673 Map No. 20 USFWS Colony No: 477-035 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Confirmed



High Counts of Brown Pelicans at Shell Beach Rocks											
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	1,674	12	1,098	22	ND	0			
1996			(7/25/87)		(11/1/91)						
1997-	119	2	1,655	6	2,330	6	33	3			
2007	(5/24/01)		(8/26/99)		(9/7/00)		(1/17/01)				
	High Count	: 2,330)	Total Counts in Database: 51							

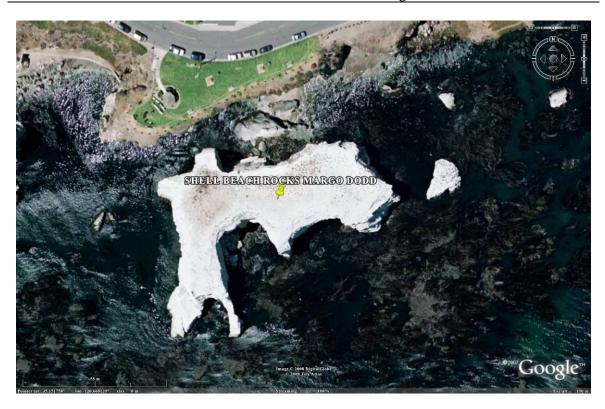
Access and Site Viewing: View from various public access points along Ocean Blvd. in Shell Beach.

Management Concerns: Human disturbances from both water and shore-based activities, including landings on rocks. Effects of commercial kayak tours and new shoreline park development are unknown.

MARGO DODD SHELL BEACH

Roost No: SL 7.0 35.1518, -120.668 Map No. 21 USFWS Colony No: 477-035 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Confirmed



	High Counts of Brown Pelicans at Margo Dodd Shell Beach											
	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	*	*	*	*	ND	0				
1996												
1997-		0	278	2	1,333	3	169	3				
2007			(7/13/00)		(9/7/00)		(1/17/01)					
	High Count: 1,333 Total Counts in Database: 51											

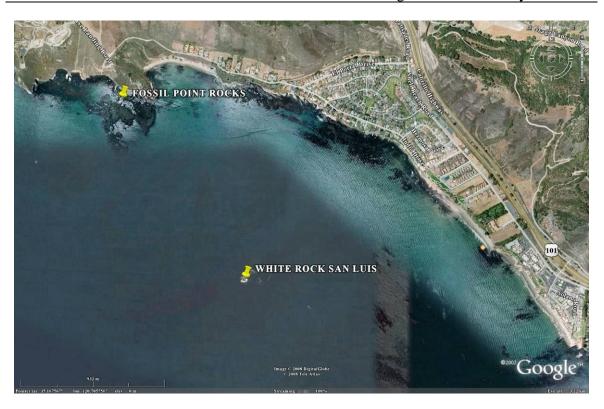
Access and Site Viewing: View from Margo Dodd City Park off of Ocean Blvd. in Shell Beach.

Management Concerns: Site is unusually vulnerable to human disturbance due to close proximity to shore. Ropes historically present to facilitate landings on island. Effects of kayaks and commercial kayak tours in the area have not been evaluated.

WHITE ROCK

Roost No: SL 8.0 35.1633, -120.71 Map No. 22 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at White Rock										
	Spring Summer Fall Winter										
Time	Total	tal N Total N Total N Total N									
Period											
1986-	ND	ND 0 ND 0 ND 0 ND 0									
1996											
1997-	18	2	ND	0	40	2	7	1			
2007	(5/4/01)				(9/12/00)		(1/16/02)				
	High Count: 40 Total Counts in Database: 5										

Access and Site Viewing: All data are from aerial surveys. Shoreline viewpoints have not been tested.

FOSSIL POINT AREA

Roost No: SL 9.0 35.1738 -120.719 Map No. 23 USFWS Colony No: 477-034 Owner: BLM Manager: BLM

Habitat: Offshore Rock and Mainland Night Roost: Unknown



	High Counts of Brown Pelicans at Fossil Point										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	21	3	218	0	563	5	10	3			
2007	(5/20/99)		(7/13/00)		(9/12/00)		(1/17/01)				
	High Count	: 563			Total Counts in	Datal	base: 11				

Access and Site Viewing: All data are from aerial surveys. Ground based view's have not been tested.

POINT SAN LUIS JETTY

Roost No: SL 10.0 35.1567, -120.751 Map No. 24 USFWS Colony No: None Owner: PSLHD Manager: PSLHD

Habitat: Jetty Night Roost: Unknown



	High Counts of Brown Pelicans at Point San Luis Jetty										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N Total N									
Period											
1986-	ND	ND 0 ND 0 446 4 ND 0									
1996					(11/01/91)						
1997-	74	3	280	5	113	6	95	3			
2007	(5/24/01)	(5/24/01) (8/26/99) (9/12/00) (1/16/02)									
	High Count: 446 Total Counts in Database: 21										

Access and Site Viewing: Best view is by boat. Distant view from end of Port San Luis wharf.

SMITH ISLAND

Roost No: SL 11.0 35.1627, -120.755 Map No. 25 USFWS Colony No: 477-033 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Smith Island										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N									
Period											
1986-	ND	ND 0 ND 0 53 2 ND 0									
1996					(10/12/87)						
1997-	21	3	68	5	214	8	325	3			
2007	(5/20/99)	(5/20/99) (8/26/99) (9/07/00) (1/17/01)									
	High Count: 325 Total Counts in Database: 21										

Access and Site Viewing: Best view is from boat. Alternate distant view from Port San Luis Wharf.

PORT SAN LUIS

Roost No: SL 12.0 35.1686, -120.754 Map No. 26 USFWS Colony No: 477-045 Owner: PRIV Manager: PSLHD

Habitat: Man-Made Structure Night Roost: Unknown



	High Counts of Brown Pelicans at Port San Luis										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	57	2	60	1			
1996					(11/10/87)						
1997-	ND	0	23	2	297	4	20	2			
2007			(7/6/00)		(10/03/97)		(1/12/00)				
	High Count	t: 297			Total Counts in	n Datal	base: 5				

Access and Site Viewing: Views available from parking lot and wharf.

Management Concerns: Pelican roosts on private property generally represent a nuisance issue. Pelicans are vulnerable to harm from accidents, contaminants, and abusive or criminal actions in this setting.

PECHO ROCK

Roost No: SL 13.0 35.1792, -120.817 Map No. 27 USFWS Colony No: 477-032 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



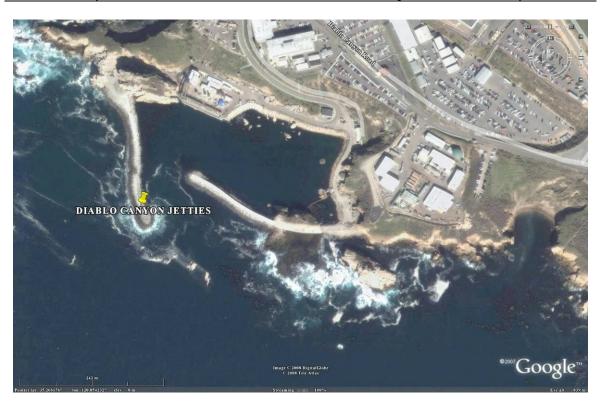
	High Counts of Brown Pelicans at Pecho Rock										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	82	1	831	2	ND	0			
1996			(7/7/97)		(11/24/87)						
1997-	18	1	39	2	197	4	141	2			
2007	(5/24/01)	(5/24/01) (7/13/00) (9/07/00) (1/17/01)									
	High Count	831			Total Counts in	Datal	base: 12				

Access and Site Viewing: Aerial survey only. No tested ground-based observation points.

DIABLO CANYON JETTIES

Roost No: SL 14.0 35.206, -120.857 Map No. 28 USFWS Colony No: None Owner: PGE Manager: PGE

Habitat: Jetty Night Roost: Unlikely



	High Counts of Brown Pelicans at Diablo Canyon Jetties										
	Spring Summer Fall Winter										
Time	Total	al N Total N Total N Total N									
Period											
1986-	ND	ND 0 ND 0 ND 0 ND 0									
1996											
1997-	ND	0	ND	0	57	1	1	1			
2007					(9/12/00)		(1/16/02)				
	High Count: 57 Total Counts in Database: 2										

Access and Site Viewing: Ground-based access to this region is regulated by Pacific Gas and Electric, Diablo Canyon Nuclear Power Plant. Permission from the utility company is required.

Management Concerns: Potential negative effects of industrial operations on pelicans are unknown; positive effects of restricted public access to shoreline are clear and probably outweigh any negative impacts from power plant operation.

DIABLO ROCK

Roost No: SL 15.0 35.206, -120.857 Map No. 29 USFWS Colony No: 477-029 Owner: PGE Manager: PGE

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Diablo Rock										
	Spring Summer Fall Winter										
Time	Total	otal N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	221	1	ND	0			
1996					(11/24/87)						
1997-	ND	0	0	1	0	2	15	2			
2007			(8/26/99)		(9/07/00)		(1/16/02)				
	High Coun	t: 221		Total Counts in	n Datal	base: 6					

Access and Site Viewing: Ground-based access to this region is regulated by Pacific Gas and Electric, Diablo Canyon Nuclear Power Plant. Permission from the utility company is required.

Management Concerns: Potential negative effects of industrial operations on pelicans are unknown.

LION ROCK DIABLO CANYON

Roost No: SL 16.0 35.2175, -120.873 Map No. 30 USFWS Colony No: 477-011 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Not Confirmed



	High Counts of Brown Pelicans at Lion Rock Diablo									
	Spring Summer Fall Winter									
Time	Total	N	Total	Total	N	Total	N			
Period										
1986-	1	1	328	2	556	2	ND	0		
1996	(5/28/93)		(7/7/87)		(11/24/87)					
1997-	10	1	171	3	0	3	671	2		
2007	(5/22/00)	(5/22/00) (7/13/00) (9/07/00) (1/16/02)								
	High Count	671		Total Counts in	Datal	base: 14	•			

Access and Site Viewing: Ground-based access to this region is regulated by Pacific Gas and Electric, Diablo Canyon Nuclear Power Plant. Permission from the utility company is required.

PUP ROCK

Roost No: SL 17.0 35.2173, -120.87 Map No. 31 USFWS Colony No: 477-028 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Not Confirmed



	High Counts of Brown Pelicans at Pup Rock										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N Total									
Period											
1986-	ND	0	356	2	522	3	ND	0			
1996			(8/20/86)		(11/17/86)						
1997-	ND	0	0	3	529	3	197	3			
2007			(8/26/99)		(9/10/98)		(1/16/02)				
	High Count	: 529	_	Total Counts in	Data	base: 14	·				

Access and Site Viewing: Ground-based access to this region is regulated by Pacific Gas and Electric, Diablo Canyon Nuclear Power Plant. Permission from the utility company is required.

DIABLO CANYON SHORELINE

Roost No: SL 18.0 35.2225, -120.874 Map No. 32 USFWS Colony No: 477-028 Owner: BLM Manager: BLM

Habitat: Offshore Rock and Mainland Night Roost: Unknown



	High Counts of Brown Pelicans at Diablo Canyon Shoreline										
	Spring Summer Fall Winter										
Time	Total	tal N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	81	1	384	1	216	3	1	1			
2007	(5/22/00)		(7/13/00)		(9/07/00)		(1/17/01)				
	High Count: 384 Total Counts in Database: 6										

Access and Site Viewing: Ground-based access to this region is regulated by Pacific Gas and Electric, Diablo Canyon Nuclear Power Plant. Permission from the utility company is required

Management Concerns: Restricted public access to this shoreline has a positive impact on roosting pelicans. Any changes to this policy may eliminate traditional mainland roost sites.

POINT BUCHON

Roost No: SL 19.0 35.2516, -120.898 Map No. 33 USFWS Colony No: 477-009 Owner: BLM Manager: BLM

Habitat: Offshore Rock and Mainland Night Roost: Unknown



	High Counts of Brown Pelicans at Point Buchon										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N Total N									
Period											
1986-	ND	0	138	1	266	1	ND	0			
1996			(7/7/87)		(11/17/86)						
1997-	ND	0	127	3	234	3	28	2			
2007			(7/13/00)		(9/12/00)		(1/12/00)				
	High Count: 266 Total Counts in Database: 10										

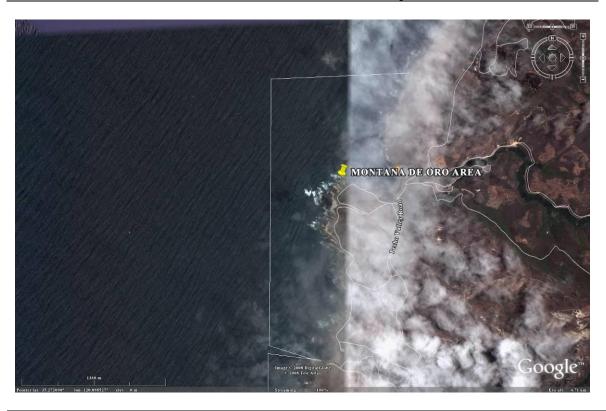
Access and Site Viewing: Ground-based access to this region is regulated by Pacific Gas and Electric, Diablo Canyon Nuclear Power Plant. Permission from the utility company is required

Management Concerns: Restricted public access to this shoreline has a positive impact on roosting pelicans. Any changes to this policy may eliminate traditional mainland roost sites.

MONTANA DE ORO

Roost No: SL 20.0 35.2744, -120.895 Map No. 34 USFWS Colony No: 477-027 Owner: BLM Manager: BLM

Habitat: Offshore Rock and Mainland Night Roost: Unknown



	High Counts of Brown Pelicans at Montana De Oro										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N Total N									
Period											
1986-	ND	ND 0 117 1 317 1 ND 0									
1996			(7/7/87)		(11/17/86)						
1997-	ND	0	376	2	0	2	28	2			
2007	(7/17/01) (9/07/00) (1/12/00)										
	High Count: 376 Total Counts in Database: 8										

Access and Site Viewing: View from the shoreline trails within Montana de Oro State Park.

MORRO BAY INTERTIDAL

Roost No: SL 21.0 35.3536, -120.853 Map No. 35 USFWS Colony No: None Owner: CA Manager: CSLC

Habitat: Estuary Night Roost: Not Suitable



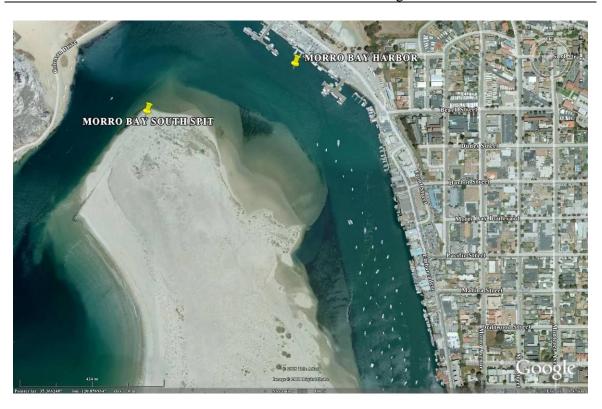
	High Counts of Brown Pelicans at Morro Bay Intertidal										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	ND 0 237 1 186 3 ND 0									
1996			(7/31/86)		(11/08/86)						
1997-	ND	0	150	2	220	4	ND	0			
2007			(8/26/99)		(9/07/00)						
	High Count: 220 Total Counts in Database: 10										

Access and Site Viewing: View from various waterfront access points around Morro Bay.

MORRO BAY SOUTH SPIT

Roost No: SL 22.0 35.3686, -120.862 Map No. 36 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: Beach Night Roost: Not Suitable



	High Counts of Brown Pelicans at Morro Bay South Spit										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0		0	25	1	ND	0			
1996					(11/10/87)						
1997-	11	2	853	2	362	6	23	1			
2007	(5/22/00)		(8/26/99)		(9/07/00)		(1/17/01)				
	High Count: 853 Total Counts in Database: 12										

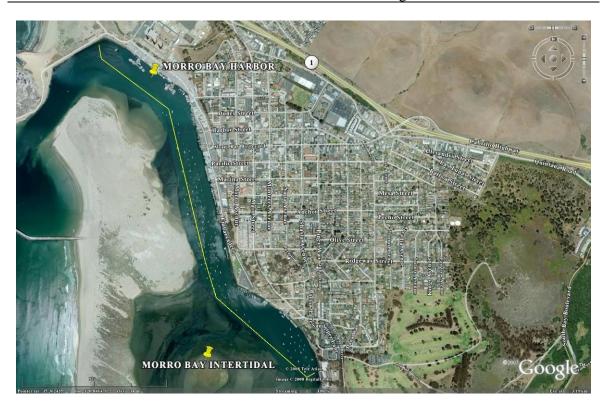
Access and Site Viewing: View from across the bay at parking areas on Coleman Drive.

Management Concerns: Human disturbance from public recreation, surfers, non-motorized boats.

MORRO BAY HARBOR

Roost No: SL 23.0 35.3699, -120.851 Map No. 37 USFWS Colony No: None Owner: PRIV Manager: CITY

Habitat: Man-Made Structure Night Roost: Unknown



	High Counts of Brown Pelicans at Morro Bay Harbor										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	78	3	37	1			
1996					(10/11/87)		(12/11/87)				
1997-	ND	0	3	1	29	2	ND	0			
2007			(6/15/91)		(10/19/91)						
	High Count: 78 Total Counts in Database: 7										

Access and Site Viewing: View from various waterfront locations in the city of Morro Bay.

Management Concerns: Pelicans roosting on private property may become a nuisance. Pelicans in harbors have increased vulnerability to harm from accidents, fishing conflicts, contamination, and malicious human actions.

MORRO BAY SOUTH JETTY

Roost No: SL 24.0 35.3612, -120.867 Map No. 38 USFWS Colony No: None Owner: USACE Manager: USACE

Habitat: Jetty Night Roost: Unknown



	High Counts of Brown Pelicans at Morro Bay South Jetty										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N Total N									
Period											
1986-	ND	0	82	3	302	8	ND	0			
1996			(7/7/87)		(9/08/87)						
1997-	ND	0	537	3	709	4	ND	0			
2007			(8/26/99)		(10/12/00)						
	High Count: 709 Total Counts in Database: 18										

Access and Site Viewing: View from base of Morro Rock across bay.

Management Concerns: Human disturbance from people walking on the jetty.

MORRO BAY NORTH JETTY

Roost No: SL 25.0 35.3638, -120.87 Map No. 39 USFWS Colony No: None Owner: USACE Manager: USACE

Habitat: Jetty Night Roost: Unlikely



	High Counts of Brown Pelicans at Morro Bay North Jetty										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	ND 0 ND 0 ND 0 ND 0									
1996											
1997-	ND	0	89	3	1,593	4	ND	0			
2007			(7/13/00)		(9/7/00)						
	High Count: 1,593 Total Counts in Database: 7										

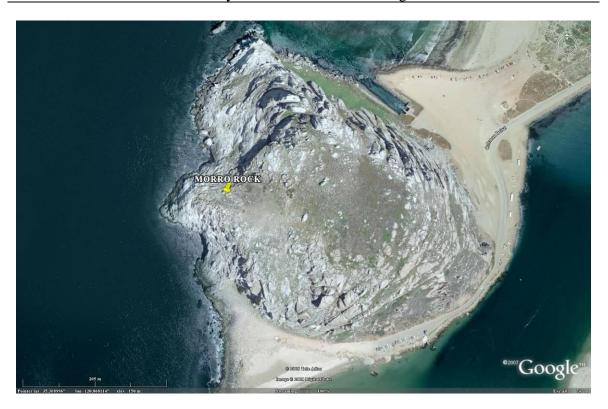
Access and Site Viewing: View from base of Morro Rock.

Management Concerns: Human disturbance from people walking on jetty.

MORRO ROCK

Roost No: SL 26.0 35.3693, -120.869 Map No. 40 USFWS Colony No: 477-026 Owner: CDPR Manager: CDPR

Habitat: Mainland Cliff or Rocky Shoreline Night Roost: Not Confirmed



	High Counts of Brown Pelicans at Morro Rock										
	Spring Summer Fall Winter										
Time	Total	otal N Total N Total N Total N									
Period											
1986-	ND	0	36	1	17	1	ND	0			
1996			(7/26/87)		(10/16/87)						
1997-	63	1	443	4	851	3	55	3			
2007	(5/22/00) (8/26/99) (9/12/00) (1/17/01)										
	High Count	851			Total Counts in	Datal	base: 13				

Access and Site Viewing: All data are from aerial survey. It is not possible to see the primary roost area from any ground-based vantage point.

PILLAR ROCK

Roost No: SL 27.0 35.3722, -120.87 Map No. 41 USFWS Colony No: 477-026 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



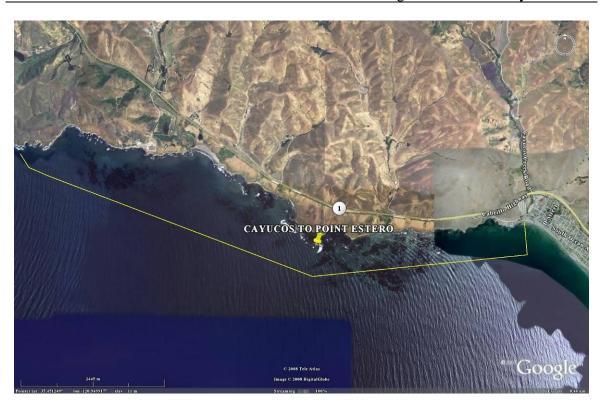
	High Counts of Brown Pelicans at Pillar Rock									
	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N		
Period										
1986-	ND	0	ND	0	21	1	ND	0		
1996					(11/17/86)					
1997-	29	3	0	1	19	4	ND	0		
2007	(5/28/93)		(8/26/99)		(9/07/00)					
	High Count: 21 Total Counts in Database: 9									

Access and Site Viewing: View from the beach or base of Morro Rock off of Coleman Drive.

CAYUCOS TO POINT ESTERO

Roost No: SL 28.0 35.4452, -120.947 Map No. 42 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Cayucos to Point Estero									
	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N		
Period										
1986-	ND	ND 0 36 1 72 1 ND 0								
1996			(7/26/87)		(10/16/87)					
1997-	130	2	483	3	226	3	5	1		
2007	(5/22/00) (7/13/00) (9/7/00) (1/16/02)									
	High Count: 483 Total Counts in Database: 11									

Access and Site Viewing: Most data are from aerial survey. No discrete traditional communal roost sites in this area. Pelicans may be seen from Cayucos and other points.

POINT ESTERO TO CAMBRIA

Roost No: SL 29.0 35.5046, -121.053 Map No. 43 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Point Estero to Cambria										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	ND 0 ND 0 ND 0									
1996											
1997-	ND	0	6	3	30	3	48	2			
2007	(8/26/99) (9/12/00) (1/16/02)										
	High Count: 48 Total Counts in Database: 8										

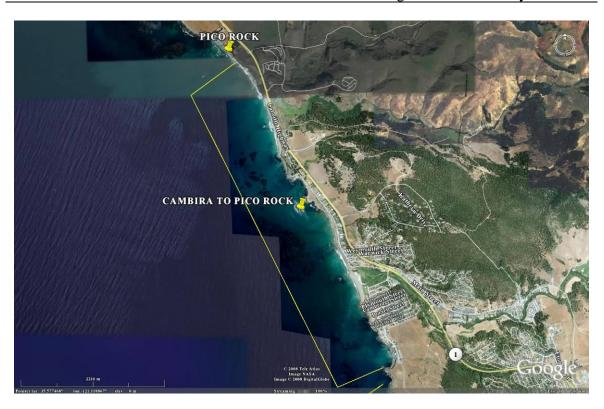
Access and Site Viewing: Most data are from aerial surveys. There are no discrete traditional communal roost sites in this area, so viewpoints will vary.

Management Concerns: None.

CAMBRIA TO PICO ROCK

Roost No: SL 30.0 35.5767, -121.119 Map No. 44 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Cambria to Pico Rock										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N Total N									
Period											
1986-	ND	ND 0 ND 0 ND 0 ND 0									
1996											
1997-	ND	0	16	1	15	3	ND	0			
2007	(8/26/99) (9/12/00)										
	High Count: 16 Total Counts in Database: 4										

Access and Site Viewing: Most data are from aerial surveys. There are no discrete traditional communal roost sites in this area, so viewpoints will vary.

Management Concerns: None.

PICO ROCK

Roost No: SL 31.0 35.5985, -121.132 Map No. 45 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Pico Rock											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND	0	70	1	55	1	ND	0				
1996			(8/20/86)		(9/21/86)							
1997-	ND	0	0	1	0	2	ND	0				
2007			(8/31/99)		(9/07/00)							
	High Count	: 70			Total Counts in	n Datal	pase: 5					

Access and Site Viewing: Data are from aerial surveys. No tested ground view points.

SAN SIMEON BAY ROCKS

Roost No: SL 32.0 35.6397, -121.176 Map No. 46 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at San Simeon Bay Rocks											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND	ND 0 543 1 13 1 ND 0										
1996			(7/26/87)		(10/16/86)							
1997-	ND	0	0	1	5	2	ND	0				
2007	(8/31/99) (9/07/00)											
	High Count	: 70			Total Counts in	Datal	base: 5					

Access and Site Viewing: Views possible from Highway 101.

TWO ROCKS SOUTH OF PIEDRAS BLANCAS

Roost No: SL 33.0 35.6593, -121.269 Map No. 47 USFWS Colony No: 477-024 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Confirmed



	High Counts of Brown Pelicans at Two Rocks South of Piedras Blancas											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	0	124	3	353	7	ND	0				
1996			(7/07/87)		(9/12/91)							
1997-	ND	0	200	1	275	2	ND	0				
2007			(8/11/98)		(9/07/00)							
	High Count	: 353			Total Counts in	Datal	base: 13					

Access and Site Viewing: View from parking lot directly inshore from rocks off Highway 101.

PIEDRAS BLANCAS ROCK

Roost No: SL 34.0 35.6647, -121.289 Map No. 48 USFWS Colony No: 477-007 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Uknown



	High Counts of Brown Pelicans at Piedras Blancas Rock											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	ND 0 205 2 671 2 ND 0										
1996			(7/07/87)		(9/06/86)							
1997-	ND	0	84	1	377	2	ND	0				
2007			(8/31/99)		(9/07/00)							
	High Count	t: 671			Total Counts in	n Datal	base: 7					

Access and Site Viewing: Data are from aerial survey only. Access to adjacent mainland is restricted. Permission from the USFWS Sea Otter research station at Point Piedras Blancas is required.

Management Concerns: (Note) Pinninpeds limit roost space available to pelicans.

LA CRUZ ROCK

Roost No: SL 35.0 35.7073, -121.313 Map No. 49

USFWS Colony No: 477-006 Owner: PRIV Manager: HEARST

Habitat: Offshore Rock Night Roost: Uknown



	High Counts of Brown Pelicans at La Cruz Rock										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	184	3	ND	0			
1996					(11/17/86)						
1997-	ND	0	84	1	105	2	ND	0			
2007			(8/31/99)		(9/10/98)						
	High Coun	: 184			Total Counts in	Datal	base: 6				

Access and Site Viewing: View from pull out on Highway 101 just south of river.

RAGGED POINT AREA

Roost No: SL 36.0 35.749, -121.318 Map No. 50 USFWS Colony No: 477-041 Owner: BLM Manager: BLM

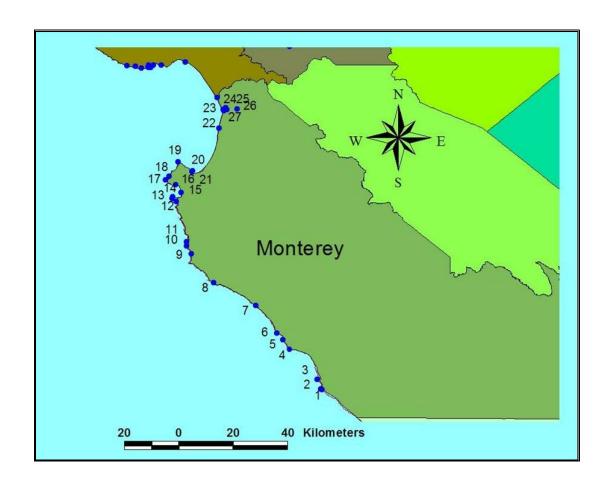
Habitat: Offshore Rock Night Roost: Uknown



	High Counts of Brown Pelicans at Ragged Point Area											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	ND 0 65 1 76 1 ND 0										
1996			(8/20/86)		(9/06/86)							
1997-	ND	0	ND	0	66	2	ND	0				
2007					(9/7/00)							
	High Coun	t: 76			Total Counts i	n Datal	oase: 4					

Access and Site Viewing: View may be possible from Highway 101.

MONTEREY COUNTY

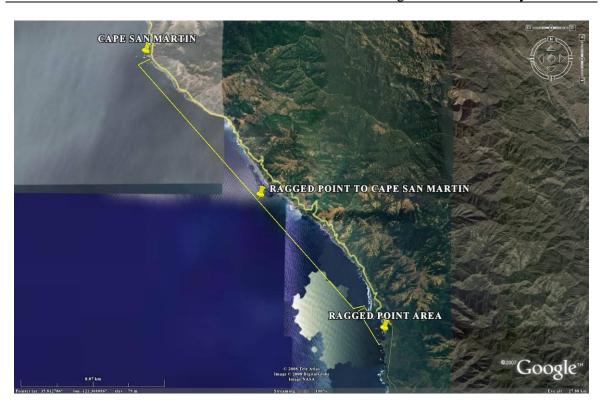


Monterey Coun	ty Roost Summary
County number	7
Number of roost sites	27
Number of confirmed night roosts	2
Roost sites with known management	8
issues	
Roost sites with >1,000 pelicans	3: Bird Island Point Lobos, Salinas River
	Mouth, Moss Landing Wildlife Area
Roost sites with 500-1,000 pelicans	3: Cape San Martin, Cypress Point,
	Monterey Harbor

RAGGED POINT TO CAPE SAN MARTIN

Roost No: MO 1.0 35.8853, -121.463 Map No. 51 USFWS Colony No: 477-004 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Ragged Point to Cape San Martin											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND 0 11 1 ND 0 ND 0											
1996			(7/30/86)									
1997-	ND	0	50	1	150	4	ND	0				
2007	(8/11/98) (9/10/98)											
	High Count	: 150			Total Counts in	Datal	base: 6					

Access and Site Viewing: Most data are from aerial surveys. Some views available from Highway 1.

CAPE SAN MARTIN

Roost No: MO 2.0 35.8853, -121.466 Map No. 52 USFWS Colony No: 477-003 Owner: USFS Manager: USFS

Habitat: Offshore Rock Night Roost: Confirmed



	High Counts of Brown Pelicans at Cape San Martin										
	Spring Summer Fall Winter										
Time	Total	Otal N Total N Total N									
Period											
1986-	ND	0	251	3	580	7	89	2			
1996			(8/20/86)		(9/06/86)		(12/6/87)				
1997-	ND	0	787	2	608	3	ND	0			
2007			(8/31/99)		(9/10/98)						
	High Count	t: 787			Total Counts in	n Datal	oase: 17				

Access and Site Viewing: There is a trail off Highway 1 that leads to an excellent cliffedge view of the south side of the rock.

PLASKETT ROCK

Roost No: MO 3.0 35.9207, -121.478 Map No. 53

USFWS Colony No: 454-002 Owner: PRIV Manager: HEARST

Habitat: Offshore Rock Night Roost: Not Confirmed



	High Counts of Brown Pelicans at Plaskett Rock											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	2	1	42	3	332	7	89	1				
1996	(5/28/93)		(7/30/86)		(11/11/87)		(12/11/87)					
1997-	ND	0	0	1	203	2	ND	3				
2007			(8/31/99)		(9/10/98)							
	High Count	: 332			Total Counts in	n Datal	base: 15					

Access and Site Viewing: Park at the Sand Dollar day use area and walk out on trails to view rocks.

PLASKETT ROCK TO GAMBOA POINT

Roost No: MO 4.0 36.0197, -121.569 Map No. 54 USFWS Colony No: 454-055 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Plaskett Rock to Gamboa Point											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND	0	22	1	16	2	ND	0				
1996			(7/29/86)		(9/12/91)							
1997-	ND	0	ND	0	124	1	ND	0				
2007					(9/10/98)							
	High Count: 124 Total Counts in Database: 4											

Access and Site Viewing: Most data are from aerial surveys. No distinct traditional communal roost in this area. View from Highway 1.

GAMBOA POINT

Roost No: MO 5.0 36.0503, -121.592 Map No. 55 USFWS Colony No: 454-053 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikley



	High Counts of Brown Pelicans at Gamboa Point										
	Spring Summer Fall Winter										
Time	Total										
Period											
1986-	ND	ND 0 49 1 12 2 ND 0									
1996			(7/29/86)		(11/07/86)						
1997-	ND	0	0	1	0	2	ND	0			
2007			(8/31/99)		(9/10/98)						
	High Count	: 49			Total Counts in	Datal	base: 6				

Access and Site Viewing: View from pull-offs on Highway 1.

SQUARE BLACK ROCK

Roost No: MO 6.0 36.0725, -121.611 Map No. 56 USFWS Colony No: 454-019 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



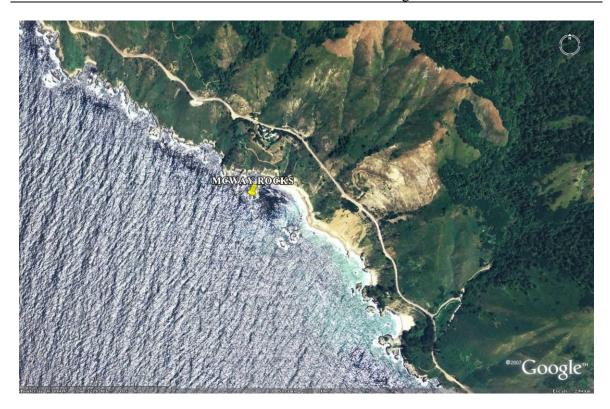
	High Counts of Brown Pelicans at Square Black Rock										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N Total N									
Period											
1986-	ND	ND 0 13 1 56 3 ND 0									
1996			(7/29/86)		(11/24/87)						
1997-	ND	0	1	2	18	2	ND	0			
2007	7 (8/11/98) (9/10/98)										
	High Count: 56 Total Counts in Database: 8										

Access and Site Viewing: View from pullout on Highway 1.

MCWAY ROCKS

Roost No: MO 6.0 36.0725, -121.611 Map No. 57 USFWS Colony No: 454-019 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at McWay Rocks											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N										
Period												
1986-	ND	0	18	2	14	2	ND	0				
1996			(7/07/87)		(9/22/86)							
1997-	ND	0	0	1	118	2	ND	0				
2007			(8/31/99)		(9/10/98)							
High Count: 118 Total Counts in Database: 7												

Access and Site Viewing: Ground based viewpoint uncertain.

PFEIFER POINT ROCKS

Roost No: MO 8.0 36.239, -121.82 Map No. 58 USFWS Colony No: 454-032 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



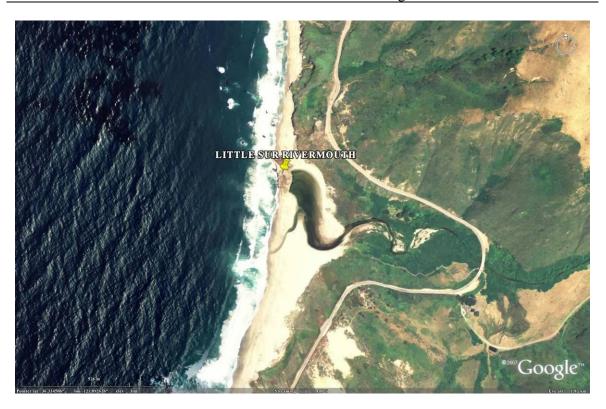
	High Counts of Brown Pelicans at Pfeifer Point Rocks											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N										
Period												
1986-	ND	0	30	1	37	1	ND	0				
1996			(7/07/87)		(11/11/87)							
1997-	ND	0	1	1	238	2	ND	0				
2007			(8/31/99)		(9/10/98)							
	High Count: 238 Total Counts in Database: 5											

Access and Site Viewing: Ground based viewpoints uncertain.

LITTLE SUR RIVER MOUTH

Roost No: MO 9.0 36.3356, -121.893 Map No. 59 USFWS Colony No: Owner: PRIV Manager: PRIV

Habitat: River Mouth Night Roost: Unsuitable



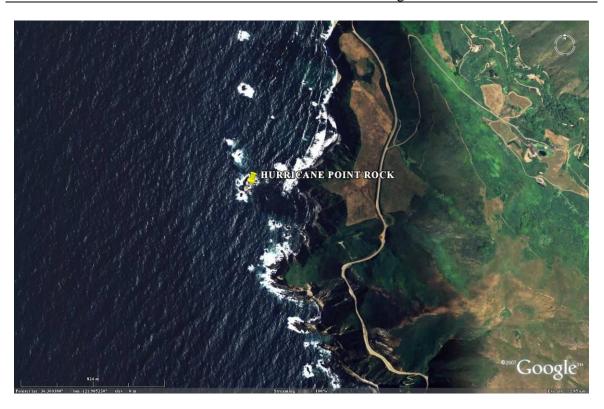
	High Counts of Brown Pelicans at Little Sur River Mouth										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	0	1	213	2			
1996					(9/2/88)		(12/6/87)				
1997-	ND	0	0	1	110	2	ND	0			
2007	2007 (8/31/99) (9/10/98)										
	High Count: 213 Total Counts in Database: 6										

Access and Site Viewing: Possible view from Highway 1.

HURRICANE POINT ROCKS

Roost No: MO 10.0 36.3615, -121.909 Map No. 60 USFWS Colony No: 454-011 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Hurricane Point Rocks										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	21	1	ND	0	213	3	213	2			
1996	(5/27/87)				(11/11/87)		(12/6/87)				
1997-	ND	0	2	1	225	2	ND	0			
2007			(8/31/99)		(9/10/98)						
	High Count: 225 Total Counts in Database: 9										

Access and Site Viewing: Possible views from Highway 1.

CASTLE ROCK MONTEREY

Roost No: MO 11.0 36.3748, -121.909 Map No. 61 USFWS Colony No: 454-010 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Castle Rock Monterey										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	18	1	ND	0			
1996					(9/22/86)						
1997-	ND	0	17	2	75	2	ND	0			
2007			(8/11/98)		(9/10/98)						
	High Count: 75 Total Counts in Database: 5										

Access and Site Viewing: Ground based views uncertain.

BIRD ISLAND POINT LOBOS

Roost No: MO 12.0 36.507, -121.944 Map No. 62 USFWS Colony No: 454-009 Owner: CDPR Manager: CDPR

Habitat: Offshore Rock Night Roost: Likely



	High Counts of Brown Pelicans at Bird Island Point Lobos											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N										
Period												
1986-	161	161 2 383 3 540 1 ND 0										
1996	(5/24/88)		(6/8/94)		(11/24/87)							
1997-	77	1	1,208	1	2,519	2	ND	0				
2007	2007 (5/30/90) (8/31/99) (9/10/98)											
High Count: 2,519 Total Counts in Database: 10												

Access and Site Viewing: Partial view available from trail system within Point Lobos State Reserve.

SEA LION ROCK POINT LOBOS

Roost No: MO 13.0 36.5178, -121.957 Map No. 63 USFWS Colony No: 454-008 Owner: CDPR Manager: CDPR

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Sea Lion Rock Point Lobos										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	0	1	95	2	ND	0			
2007	2007 (8/31/99) (9/07/00)										
	High Count: 95 Total Counts in Database: 3										

Access and Site Viewing: Good views available from trail system within Point Lobos State Reserve.

PINNACLE POINT POINT LOBOS

Roost No: MO 14.0 36.524, -121.955 Map No. 64 USFWS Colony No: 454-007 Owner: CDPR Manager: CDPR

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Pinnacle Point Point Lobos										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	105	1	276	2	ND	0			
2007	2007 (8/31/99) (9/07/00)										
	High Count: 276 Total Counts in Database: 3										

Access and Site Viewing: Ground views may be possible from trail system within Point Lobos State Reserve.

CARMEL RIVER MOUTH

Roost No: MO 15.0 36.5375 -121.928 Map No. 65 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: River mouth Night Roost: Not Suitable



High Counts of Brown Pelicans at Carmel River Mouth											
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	1	1	ND	0	ND	0			
1996			(6/17/91)								
1997-	ND	0	11	1	160	2	ND	0			
2007			(8/31/99)		(9/10/98)						
	High Count: 160 Total Counts in Database: 4										

Access and Site Viewing: View from north side of the river mouth within Carmel River State Beach off of Highway 1 at the south end of Carmel.

Management Concerns: Human disturbance due to public recreational activities.

PESCADERO ROCK MONTEREY

Roost No: MO 16.0 36.5627 -121.945 Map No. 66 USFWS Colony No: 454-022 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Pescadero Rock Monterey										
	Spring	Spring Summer Fall Winter									
Time	Total	otal N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	ND	0	348	2	ND	0			
2007					(9/07/00)						
	High Count:	348		Total Counts i	n Dat	abase: 2	•				

Access and Site Viewing: Data are from aerial surveys. No ground-based viewpoints have been tested.

CYPRESS POINT

Roost No: MO 17.0 36.58 -121.978 Map No. 67 USFWS Colony No: Owner: PRIV Manager: PRIV

Habitat: Mainland Cliff or Rocky Shoreline Night Roost: Not Suitable



	High Counts of Brown Pelicans at Cypress Point											
	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	204	1	630	2	ND	0				
2007			(8/31/99)		(9/10/98)							
	High Count: 630 Total Counts in Database: 3											

Access and Site Viewing: All data are from aerial surveys. Ground based access to this private property is regulated by the Cypress Point Golf Club.

Management Concerns: None known. There may be occasional golf-related human disturbance.

BIRD AND SEAL ROCKS PEBBLE BEACH

Roost No: MO 18.0 36.5915, -121.967 Map No. 68 USFWS Colony No: 454-006 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Likely



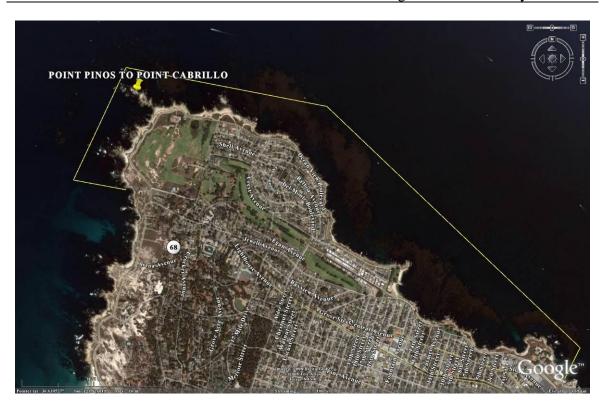
	High Counts of Brown Pelicans at Bird and Seal Rocks Pebble Beach												
	Spring	Spring Summer Fall Winter											
Time	Total	otal N Total N Total N Total N											
Period													
1986-	ND	0	246	6	476	10	ND	0					
1996			(7/15/87)		11/10/87								
1997-	ND	0	74	1	266	2	ND	0					
2007			(8/31/99)		(9/7/00)								
	High Count: 476 Total Counts in Database: 19												

Access and Site Viewing: View from parking lot on adjacent to the roost on 17 mile drive toll road.

POINT PINOS TO POINT CABRILLO

Roost No: MO 19.0 36.6382, -121.938 Map No. 69 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



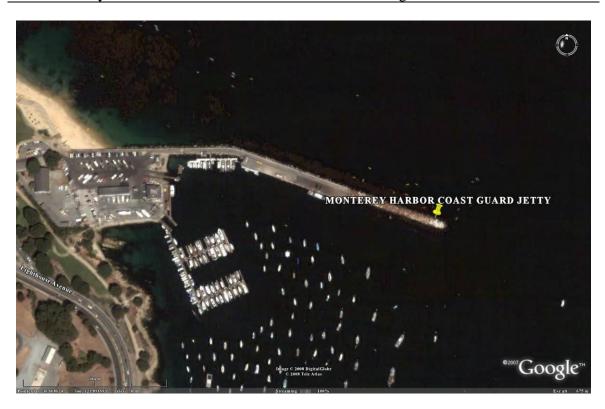
	High Counts of Brown Pelicans at Point Pinos to Point Cabrillo												
	Spring Summer Fall Winter												
Time	Total	Total N Total N Total N Total N											
Period													
1986-	ND	0	ND	0	69	3	ND	0					
1996					(9/12/91)								
1997-	ND	0	74	1	67	2	ND	0					
2007			(8/31/99)		(9/10/98)								
	High Count: 74 Total Counts in Database: 6												

Access and Site Viewing: Most data are from aerial surveys. Ground based viewpoints have note been tested.

MONTEREY HARBOR COAST GUARD JETTY

Roost No: MO 20.0 36.6085, -121.89 Map No. 70 USFWS Colony No: 454-053 Owner: USACE Manager: USACE

Habitat: Jetty Night Roost: Unknown



	High Counts of Brown Pelicans at Monterey Harbor Coast Guard Jetty											
	Spring Summer Fall Winter											
Time	Total	otal N Total N Total N										
Period												
1986-	ND	0	ND	0	125	2	ND	0				
1996					(10/10/87)							
1997-	ND	0	86	2	174	4	ND	0				
2007			(8/31/99)		(9/7/00)							
	High Count:	High Count: 174 Total Counts in Database: 8										

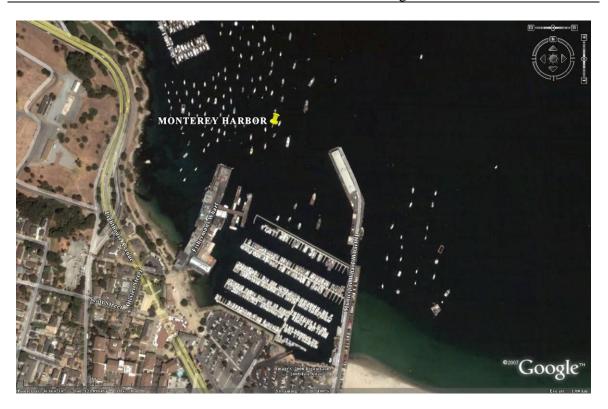
Access and Site Viewing: Best view is from Monterey Fisherman's Wharf across harbor.

Management Concerns: None known. Sea Lions dominate roost much of the year.

MONTEREY HARBOR

Roost No: MO 21.0 36.6062, -121.891 Map No. 71 USFWS Colony No: 454-053 Owner: PRIV Manager: CITY

Habitat: Man-made Structures Night Roost: Confirmed



	High Counts of Brown Pelicans at Monterey Harbor												
	Spring	Spring Summer Fall Winter											
Time	Total	otal N Total N Total N											
Period													
1986-	ND	0	212	1	634	10	530	2					
1996			(6/17/91)		(11/19/87)								
1997-	ND	0	42	2	261	4	ND	0					
2007			(7/6/00)		(9/2/98)								
	High Count: 634 Total Counts in Database: 19												

Access and Site Viewing: View from various vantage points on the Monterey Fisherman's Wharf and Commercial Wharf.

Management Concerns: Harm to pelicans from contaminants, fishing-related conflicts, disease, accidents, and human malice. Nuisance issues due to negative effects of pelican use on public and private property.

SALINAS RIVER MOUTH

Roost No: MO 22.0 36.7493, -121.803 Map No. 72

USFWS Colony No: 454-060 Owner: USFWS Manager: USFWS

Habitat: River Mouth Night Roost: Not



	High Counts of Brown Pelicans at Salinas River Mouth													
	Spring	Spring Summer Fall Winter												
Time	Total	otal N Total N Total N Total N												
Period														
1986-	ND	ND 0 1,415 8 306 20 1 1												
1996			(7/12/87		(9/6/86		(12/3/87)							
1997-	ND	0	1,086	2	596	4	ND	0						
2007	2007 (8/31/99) (9/10/98)													
	High Count: 1,415 Total Counts in Database: 35													

Access and Site Viewing: Best view is from the end of a dirt road on the north side of river mouth, but access is through private agricultural lands. Alternate access is from Salinas River National Wildlife Refuge trail, along south side of river.

Management Concerns: Waterfowl hunting related disturbances, general public recreational disturbance, research and monitoring disturbance, contaminated water from agricultural runoff.

MOSS LANDING HARBOR

Roost No: MO 23.0 36.8068, -121.786 Map No. 73 USFWS Colony No: 454-042 Owner: PRIV Manager: MLHD

Habitat: Man-made Structure Night Roost: Unknown



	High Counts of Brown Pelicans at Moss Landing Harbor												
	Spring Summer Fall Winter												
Time	Total	Total N Total N Total N Total N											
Period													
1986-	ND	0	ND		102	9	8	1					
1996					(11/28/86)		(12/5/87)						
1997-	ND	0	0	1	153	9	ND	0					
2007			(8/31/99)		(9/9/00)								
	High Count: 153 Total Counts in Database: 20												

Access and Site Viewing: View from various vantage points around the harbor.

Management Concerns: Pelican exposure to contaminants and accidental injury. . Nuisance issues due to negative effects of pelican use on public and private property.

JETTY ROAD BEACH

Roost No: MO 24.0 36.812, -121.789 Map No. 74 USFWS Colony No: 454-042 Owner: CDPR Manager: CDPR

Habitat: Estuary Night Roost: Not



	High Counts of Brown Pelicans at Jetty Road Beach												
	Spring	Spring Summer Fall Winter											
Time	Total	tal N Total N Total N Total N											
Period													
1986-	352	1	271	6	248	33	12	2					
1996	(5/4/90)		(8/31/87)		(9/27/86)		(12/5/87)						
1997-	ND	0	48	2	24	1	ND	0					
2007			(7/5/00)		(9/1/98)								
	High Count: 248 Total Counts in Database: 41												

Access and Site Viewing: View from parking lot across roost off Highway 1.

Management Concerns: Human disturbance from general public recreation, small sailboats, and kayaks.

MOSS LANDING WILDLIFE AREA

Roost No: MO 25.0 36.8183, -121.781 Map No. 75 USFWS Colony No: 454-003 Owner: CDFG Manager: CDFG

Habitat: Estuary Night Roost: Confirmed



	High Counts of Brown Pelicans at Moss Landing Wildlife Area											
	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	271	6	4,355	150	246	18				
1996			(8/31/87)		(7/28/87)		(12/10/87)					
1997-	ND	0	48	2	1,301	9	ND	0				
2007			(7/5/00)		(9/10/99)							
	High Count: 4,355 Total Counts in Database: 185											

Access and Site Viewing: View from trail network within Moss Landing Wildife Area.

Management Concerns: Water level management in remnant salt ponds, public access to sensitive roost areas, waterfowl hunting, kayak disturbance.

ELKHORN SLOUGH NATIONAL ESTUARINE RESEARCH RESERVE

Roost No: MO 26.0 36.8138, -121.743 Map No. 76 USFWS Colony No: 454-058 Owner: NOAA Manager: NERR

Habitat: Estuary Night Roost: Unlikely



	High Counts of Brown Pelicans at Elkhorn Slough NERR											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	ND 0 ND 0 17 1 ND 0										
1996					(11/16/86)							
1997-	ND	0	0	1	330	4	ND	0				
2007	2007 (8/31/99) (9/9/99)											
	High Count: 330 Total Counts in Database: 6											

Access and Site Viewing: View from overlook or trails within Elkhorn Slough National Estuarine Research Reserve.

ELKHORN SLOUGH SOUTH LEVEE

Roost No: MO 27.0 36.8115, -121.776 Map No. 77 USFWS Colony No: 454-058 Owner: PRIV Manager: PRIV

Habitat: Estuary Night Roost: Unlikely

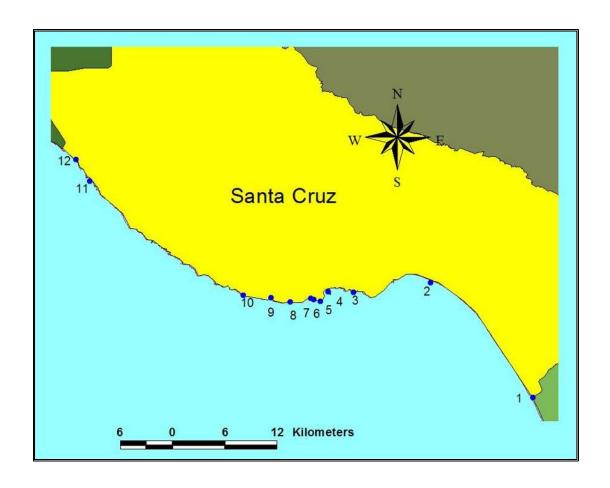


	High Counts of Brown Pelicans at Elkhorn Slough South Levee											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	0	1	460	2	ND	0				
2007			(8/31/99)		(9/7/00)							
	High Count: 460 Total Counts in Database: 3											

Access and Site Viewing: View from across estuary at Moss Landing Wildlife Area.

Management Concerns: Levees are eroding and may become unavailable to pelicans over time. Property is private.

SANTA CRUZ COUNTY

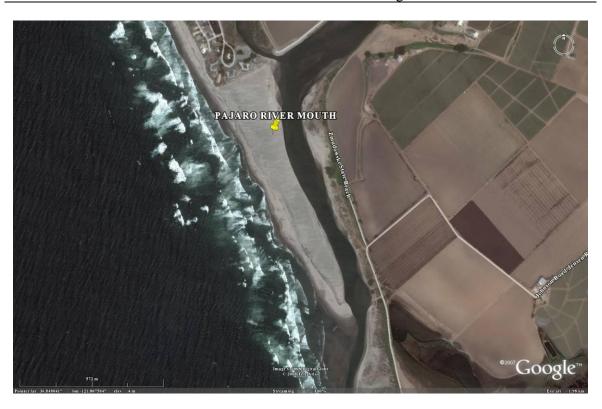


Santa Cruz Cour	nty Roost Summary
County number:	8
Number of roost sites:	12
Number of confirmed night roosts	0
Roost sites with known management	
issues:	6
Roost sites with >1,000 pelicans	1: Pajaro River Mouth
Roost sites with 500-1,000 pelicans	None

PAJARO RIVER MOUTH

Roost No: SC 1.0 36.8183, -121.781 Map No. 78 USFWS Colony No: 454-003 Owner: CDPR Manager: CDPR

Habitat: River Mouth Night Roost: Not Suitable



	High	Coun	ts of Brown Pel	licans	at Pajaro River	Mouth	l						
	Spring	Spring Summer Fall Winter											
Time	Total	tal N Total N Total N Total N											
Period													
1986-	ND	ND 0 1,059 2 44 4 ND 0											
1996			(8/20/86)		(9/12/87)								
1997-	ND	0	111	1	695	2	ND	0					
2007	(8/31/99) (9/10/98)												
	High Count: 1,059 Total Counts in Database: 9												

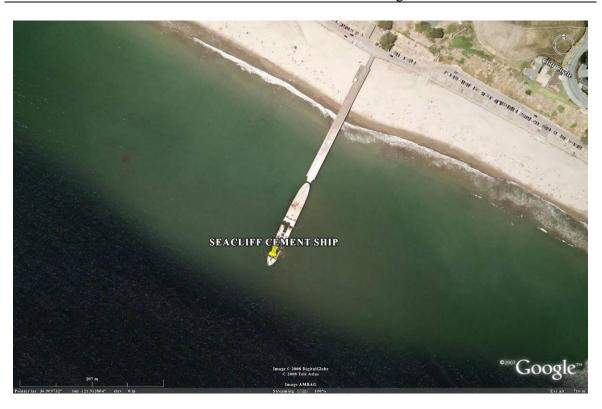
Access and Site Viewing: View from north side within Pajaro Dunes Company. Access is subject to permission from property owners association.

Management Concerns: Chronic human disturbance from private and public recreational activities. Contamination from agricultural runoff.

SEACLIFF CEMENT SHIP

Roost No: SC 2.0 36.969, -121.914 Map No. 79 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: Man-made Structure Night Roost: Unknown



	High	Count	s of Brown Peli	cans	at Seacliff Ceme	ent Ship)	
	Spring		Summer		Fall		Winte	r
Time	Total	N	Total	N	Total	N	Total	N
Period								
1986-	ND	0	51	3	76	6	ND	0
1996			(7/10/86)		(10/18/91)			
1997-	ND	0	79	2	65	2	ND	0
2007			(8/31/99)		(9/10/98)			
	High Count:	79		Total Counts i	n Datal	base: 13		

Access and Site Viewing: View from within Seacliff State Beach, on the pier and/or at the overlook southeast of the pier.

Management Concerns: Contaminants leaching from sunken ship's hull, fireworks displays.

BLACK POINT

Roost No: SC 3.0 36.9587, -121.993 Map No. 80 USFWS Colony No: None Owner: PRIV Manager: PRIV

Habitat: Mainland Cliff or Rocky Shoreline Night Roost: Not Suitable



	I	High C	Counts of Brown	Pelio	cans at Black Po	oint			
	Spring	Spring Summer Fall Winter							
Time	Total	N	Total	N	Total	N	Total	N	
Period									
1986-	ND	0	ND	0	186	3	ND	0	
1996					(11/15/86)				
1997-	ND	0	0	1	198	2	ND	0	
2007			(8/31/99)		(9/7/00)				
	High Count: 198 Total Counts in Database: 6								

Access and Site Viewing: Distant view possible from north of the site in Santa Cruz. Adjacent shoreline property is private residential.

SANTA CRUZ WHARF

Roost No: SC 4.0 36.9593, -121.019 Map No. 81 USFWS Colony No: None Owner: PRIV Manager: CITY

Habitat: Man-made Structure Night Roost: Unknown



	High	h Cou	nts of Brown Pe	lican	s at Santa Cruz	Wharf		
	Spring		Summer		Fall		Winte	r
Time	Total	N	Total	N	Total	N	Total	N
Period								
1986-	ND	0	270	1	214	4	ND	0
1996			(6/20/91)		(9/20/91)			
1997-	ND	0	17	1	90	2	ND	0
2007			(8/31/99)		(9/10/98)			
	High Count:	270		•	Total Counts i	n Data	base: 8	

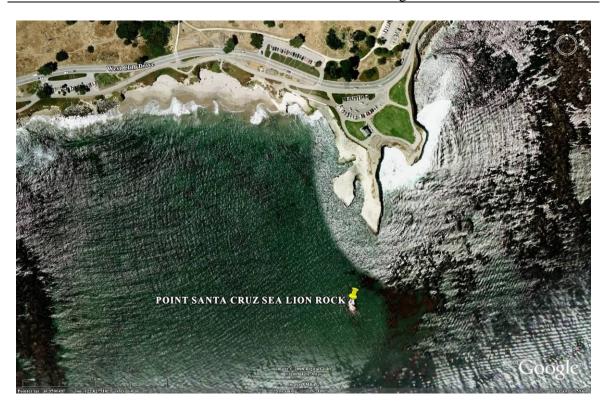
Access and Site Viewing: Portions of the roost are visible from the public wharf, however, a distant view from Point Santa Cruz may be necessary to count pelicans on the rooftops.

Management Concerns: Fishing–related conflicts and injury, negative impacts on private property, public health concerns.

POINT SANTA CRUZ

Roost No: SC 5.0 36.9593, -122.035 Map No. 82 USFWS Colony No: 454-041 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	Hig	th Cou	ants of Brown P	elicar	s at Point Santa	Cruz		
	Spring		Summer		Fall		Winte	er
Time	Total	N	Total	N	Total	N	Total	N
Period								
1986-	ND	0	82	4	80	2	ND	0
1996			(7/10/86)		(9/06/86)			
1997-	ND	0	16	2	0	2	ND	0
2007			(7/5/00)		(9/7/00)			
	High Count:	82		•	Total Counts i	in Data	base: 10	•

Access and Site Viewing: View from public access point at the tip of Point Santa Cruz.

PELICAN ROCK SANTA CRUZ

Roost No: SC 6.0 36.9513, -122.034 Map No. 83 USFWS Colony No: 454-041 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High C	ounts	of Brown Pelica	ans at	Pelican Rock S	anta Cr	uz	
	Spring		Summer		Fall		Winte	er
Time	Total	N	Total	N	Total	N	Total	N
Period								
1986-	53	1	269	8	217	14	ND	0
1996	(5/4/90)		(6/20/91)		(9/10/91)			
1997-	ND	0	398	2	73	2	ND	0
2007			(7/5/00)		(9/7/00)			
	High Count: 398 Total Counts in Database: 27							

Access and Site Viewing: View from public access point on West Cliff Drive, immediately adjacent to roost.

Management Concerns: Roost is close enough to shore that it is subject to disturbance from shore-based recreational activities such as fishing and erratic exercise motions.

WEST CLIFF DRIVE ROCKS

Roost No: SC 7.0 36.9524, -122.037 Map No. 84 USFWS Colony No: 454-041 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High C	Counts	of Brown Pelica	ans a	t West Cliff Driv	ve Roc	ks		
	Spring		Summer		Fall		Winte	r	
Time	Total	N	Total	N	Total	N	Total	N	
Period									
1986-	ND	0	ND	0	218	3	ND	0	
1996									
1997-	ND	0	ND	0	ND	0	ND	0	
2007									
	High Count: 218 Total Counts in Database: 3								

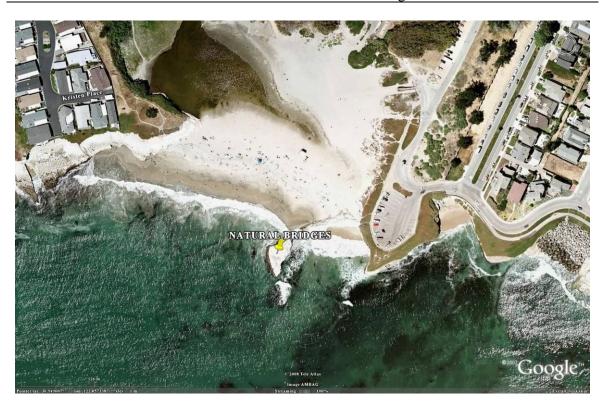
Access and Site Viewing: View from pull-outs along West Cliff Drive.

Management Concerns: Pelicans may be subject to disturbance from recreational activities at this site, but it has not been documented.

NATURAL BRIDGES

Roost No: SC 8.0 36.9492, -122.058 Map No. 85 USFWS Colony No: 454-041 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	Hiş	gh Co	unts of Brown P	elica	ns at Natural Br	idges			
	Spring	Spring Summer Fall Winter							
Time	Total	N	Total	N	Total	N	Total	N	
Period									
1986-	ND	0	15	1	64	2	ND	0	
1996			(8/31/99)		(9/20/91)				
1997-	ND	0	ND	0	207	2	ND	0	
2007					(9/7/00)				
	High Count: 207 Total Counts in Database: 5								

Access and Site Viewing: View from parking lot just north of the beach or within Natural Bridges State Park.

WILDER CREEK MOUTH

Roost No: SC 9.0 36.9535, -122.078 Map No. 86 USFWS Colony No: 454-040 Owner: CDPR Manager: CDPR

Habitat: Creek Mouth Night Roost: Not Suitable



	High	Count	ts of Brown Peli	cans	at Wilder Creek	Mouth	1		
	Spring		Summer		Fall		Winte	r	
Time	Total	N	Total	N	Total	N	Total	N	
Period									
1986-	ND	0	128	1	138	1	ND	0	
1996			(7/7/87)		(9/6/86)				
1997-	ND	0	115	1	98	2	ND	0	
2007			(8/31/99)	(9/10/98)					
	High Count: 138 Total Counts in Database: 5								

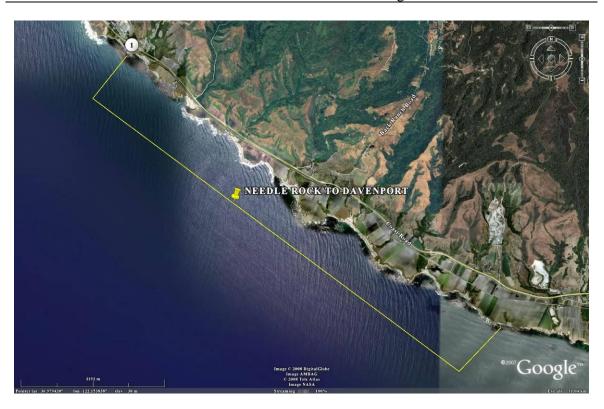
Access and Site Viewing: View from the blufftop trail on the north side of the beach within Wilder Beach State Park.

Management Concerns: None known. Restricted beach access during the Snowy Plover breeding season limits human disturbance.

NEEDLE ROCK TO DAVENPORT

Roost No: SC 10.0 36.9559, -122.106 Map No. 87 USFWS Colony No: 454-039 Owner: BLM Manager: BLM

Habitat: Offshore Rock and Mainland Night Roost: Unknown



	High Co	unts o	f Brown Pelicar	ns at 1	Needle Rock to	Davenp	ort	
	Spring		Summer		Fall		Winte	r
Time	Total	N	Total	N	Total	N	Total	N
Period								
1986-	ND	0	ND	0	55	1	ND	0
1996					(11/17/86)			
1997-	ND	0	0	1	215	2	ND	0
2007			(8/31/99)		(9/7/00)			
	High Count:	215			Total Counts i	n Datal	base: 4	•

Access and Site Viewing: There is limited site viewing in this region and no specific traditional communal roost sites. Most data are from aerial surveys.

PELICAN ROCK

Roost No: SC 11.0 37.0732, -122.264 Map No. 88 USFWS Colony No: 454-049 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	Н	igh Co	ounts of Brown	Pelic	ans at Pelican R	ock			
	Spring	Spring Summer Fall Winter							
Time	Total	N	Total	N	Total	N	Total	N	
Period									
1986-	ND	0	ND	0	288	7	ND	0	
1996					(9/20/91)				
1997-	ND	0	19	2	233	2	ND	0	
2007			(7/5/00)		(9/7/00)				
High Count: 288 Total Counts in Database: 11									

Access and Site Viewing: View from bluff top or pull-off along Highway 1.

WADELL CREEK MOUTH

Roost No: SC 12.0 37.0952, -122.278 Map No. 89 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: Creek Mouth Night Roost: Not Suitable



	High	Count	s of Brown Peli	cans	at Wadell Creek	Mouth	1		
	Spring Summer Fall Winter								
Time	Total	N	Total	N	Total	N	Total	N	
Period									
1986-	ND	0	390	1	17	1	ND	0	
1996			(8/9/91)		(9/10/91)				
1997-	ND	0	0	2	0	2	ND	0	
2007			(8/31/99)		(9/7/00)				
High Count: 390 Total Counts in							base: 6		

Access and Site Viewing: View from public parking lot or beach north of Creek Mouth off Highway 1.

Management Concerns: Chronic human disturbance from public recreational activities.

SAN MATEO COUNTY



San Mateo Cour	nty Roost Summary
County number:	9
Number of roost sites:	12
Number of confirmed night roosts	2
Roost sites with known management	
issues:	4
Roost sites with >1,000 pelicans	2: Point Año Nuevo, Año Nuevo Island
Roost sites with 500-1,000 pelicans	3: Pillar Point Harbor, Devil's Slide Rock

POINT AÑO NUEVO

Roost No: SM 1.0 37.1163, -122.316 Map No. 90 USFWS Colony No: 429-022 Owner: CDPR Manager: CDPR

Habitat: Mainland Cliff or Rocky Shoreline Night Roost: Not Suitable



	High Counts of Brown Pelicans at Point Ano Nuevo										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	ND 0 ND 0 ND 0									
1996											
1997-	ND	0	ND	0	1,438	2	ND	0			
2007	7 (9/7/00)										
	High Count:	1,438	3		Total Counts i	n Datal	base: 2	•			

Access and Site Viewing: View from trails within Año Nuevo State Reserve. Permission to access viewpoint may be required.

AÑO NUEVO ISLAND

Roost No: SM 2.0 37.1088, -122.338 Map No. 91 USFWS Colony No: 429-023 Owner: CDPR Manager: CDPR

Habitat: Offshore Rock Night Roost: Confirmed



	High Counts of Brown Pelicans at Año Nuevo Island											
	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	1,165	1	2.063	6	1,065	12	ND	0				
1996	(5/30/90)		(7/7/87)		(9/6/98)							
1997-	ND	0	1,338	2	5,229	2	ND	0				
2007			(8/31/99)		(9/10/98)							
	High Count:	5,229)		Total Counts	in Datal	base: 23					

Access and Site Viewing: Permission to access the island is subject the California Department of Parks and Recreation, Año Nuevo State Reserve.

Management Concerns: Human disturbance from recreational divers in the intertidal and research activities. Pelicans have negative impacts on island vegetation.

GAZOS CREEK MOUTH

Roost No: SM 3.0 37.1088, -122.338 Map No. 92 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: Creek Mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Gazos Creek Mouth											
	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	63	1	43	1	ND	0				
1996			(7/28/87)		(9/10/91)							
1997-	ND	0	77	1	48	2	ND	0				
2007			(8/31/99)		(9/7/00)							
	High Count: 77 Total Counts in Database: 5											

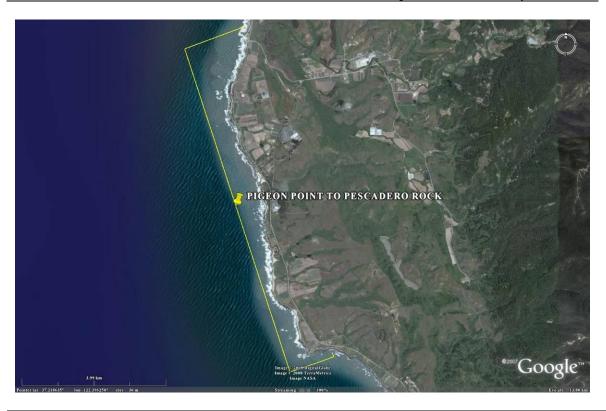
Access and Site Viewing: View from parking lot or beach at the Gazos Creek Access off Highway 1.

Management Concerns: Human disturbance from public recreation.

PIGEON POINT TO PESCADERO BEACH

Roost No: SM 4.0 37.182, -122.39 Map No. 93 USFWS Colony No: 429-034 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Pigeon Point to Pescadero Beach										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	19	2	ND	0			
1996					(9/10/91)						
1997-	ND	0	0	1	41	2	ND	0			
2007			(8/31/99)		(9/10/98)						
	High Count: 41 Total Counts in Database: 5										

Access and Site Viewing: View from pull-outs and public access points along Highway One.

TUNITAS CREEK MOUTH

Roost No: SM 5.0 37.3591, -122.401 Map No. 94 USFWS Colony No: None Owner: PRIV Manager: PRIV

Habitat: Creek Mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Tunitas Creek Mouth											
	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	192	2	136	2	ND	0				
1996			(7/7/87)		(9/16/87)							
1997-	ND	0	0	1	22	2	ND	0				
2007			(8/31/99)		(9/7/00)							
	High Count:	192			Total Counts i	n Datal	base: 7					

Access and Site Viewing: There is no public access to the beach nearby. View from pull-out south of the creek on Highway One.

MARTIN'S BEACH ROCKS

Roost No: SM 6.0 37.3987, -122.425 Map No. 95 USFWS Colony No: 429-032 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Martin's Beach Rock											
	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	51	2	49	4	ND	0				
1996			(7/7/87)		(9/16/87)							
1997-	ND	0	17	1	0	2	ND	0				
2007			(8/31/99)		(9/7/00)							
	High Count: 51 Total Counts in Database: 9											

Access and Site Viewing: Access to the beach viewpoint is subject to a fee from private landowner.

SEAL ROCK SAN MATEO

Roost No: SM 8.0 37.3919, -122.425 Map No. 96 USFWS Colony No: 429-032 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Seal Rock San Mateo											
	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	102	1	ND	0	ND	0				
1996			(7/7/87)									
1997-	ND	0	84	1	66	2	ND	0				
2007			(8/31/99)		(9/10/00)							
	High Count: 102 Total Counts in Database: 4											

Access and Site Viewing: All data are from aerial surveys. No tested ground-based viewpoints.

EEL ROCK

Roost No: SM 8.0 37.4066, -122.49 Map No. 97 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Eel Rock										
	Spring		Summer		Fall		Winte	r			
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	3	1	30	1	ND	0			
1996			(7/7/87)		(9/6/86)						
1997-	ND	0	0	1	81	2	ND	0			
2007			(8/31/99)		(9/10/98)						
	High Count: 81 Total Counts in Database: 5										

Access and Site Viewing: All data are from aerial surveys. No tested ground-based viewpoints.

PILLAR POINT HARBOR

Roost No: SM 9.0 37.4998, -122.482 Map No. 98 USFWS Colony No: None Owner: SMHD Manager: SMHD

Habitat: Breakwater Night Roost: Confirmed



High Counts of Brown Pelicans at Pillar Point Harbor										
	Spring	Spring Summer Fall Winter								
Time	Total	N	Total	N	Total	N	Total	N		
Period										
1986-	ND	0	268	3	55	5	ND	0		
1996			(7/6/86)		(9/12/88)					
1997-	ND	0	787	1	460	3	ND	0		
2007			(8/31/99)		(9/07/00)					
	High Count:	787		•	Total Counts i	n Datal	base: 12	•		

Access and Site Viewing: Portions of roost visible from ground based access points within harbor, but boat may be required to see entire area.

Management Concerns: Fishing-related conflicts, contaminants, and intentional harm by humans. Pelicans have some negative impacts on private property at this site.

DEVIL'S SLIDE ROCK

Roost No: SM 10.0 37.5774, -122.522 Map No. 99 USFWS Colony No: 429-014 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Devil's Slide											
	Spring	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	189	2	202	5	16	1	ND	0				
1996	(5/24/88)		(7/7/87)		(11/12/87)							
1997-	ND	0	0	1	545	2	ND	0				
2007			(8/31/99)		(9/10/98)							
	High Count: 545 Total Counts in Database: 1											

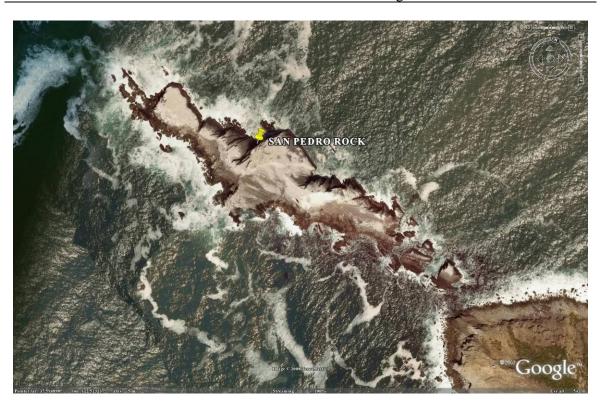
Access and Site Viewing: View from pull-out along Highway One.

Management Concerns: Roosting pelicans have caused harm to Common Murres nesting at this site.

SAN PEDRO ROCK

Roost No: SM 11.0 37.5954, -122.524 Map No. 100 USFWS Colony No: 429-013 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at San Pedro Rock											
	Spring	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	121	3	30	1	350	3	ND	0				
1996	(5/30/90)		(6/21/91)		(9/6/86)							
1997-	ND	0	177	1	224	2	ND	0				
2007			(8/31/99)		(9/7/00)							
High Count: 350 Total Counts in Database: 10												

Access and Site Viewing: View from pull-out along Highway One.

MUSSEL ROCK

Roost No: SM 12.0 37.6672, -122.497 Map No. 101 USFWS Colony No: 374-01 Owner: BLM Manager: BLM

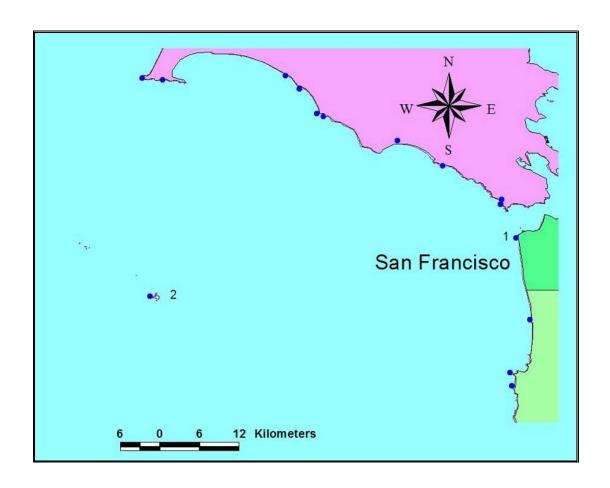
Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Mussel Rock										
	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	ND 0 ND 0 ND 0									
1996											
1997-	ND	0	0	1	40	2	ND	0			
2007	2007 (8/31/99) (9/7/00)										
High Count: 350 Total Counts in Database: 10											

Access and Site Viewing: All data are from aerial surveys. No tested ground-based observation points.

SAN FRANCISCO COUNTY



San Francisco Co	unty Roost Summary
County number:	10
Number of roost sites:	2
Number of confirmed night roosts	2
Roost sites with known management	
issues:	1
Roost sites with >1,000 pelicans	2: Seal Rocks San Francisco, Southeast
	Farallon Island
Roost sites with 500-1,000 pelicans	No others

SEAL ROCKS SAN FRANCISCO

Roost No: SF 1.0 37.785, -122.516 Map No. 102 USFWS Colony No: 429-009 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Confirmed



	High Counts of Brown Pelicans at Seal Rocks San Francisco													
	Spring		Summer		Fall	Winter								
Time	Total	N	Total	N	Total	N	Total	N						
Period														
1986-	263	3	71	6	315	7	ND	0						
1996	(9/7/00)		(7/5/86)		(9/4/86)									
1997-	ND	0	13	1	1,003	4	ND	0						
2007														
	High Count:	1,003	3		Total Counts i	n Datal	base: 21							

Access and Site Viewing: View from the public overlook at the Cliff House. Pelicans using this roost also use Sutro Baths for bathing and roosting.

SOUTHEAST FARALLON ISLAND

Roost No: SF 2.0 37.6993, -123.012 Map No. 103 USFWS Colony No: Owner: USFWS Manager: USFWS

Habitat: Offshore Rock Night Roost: Confirmed

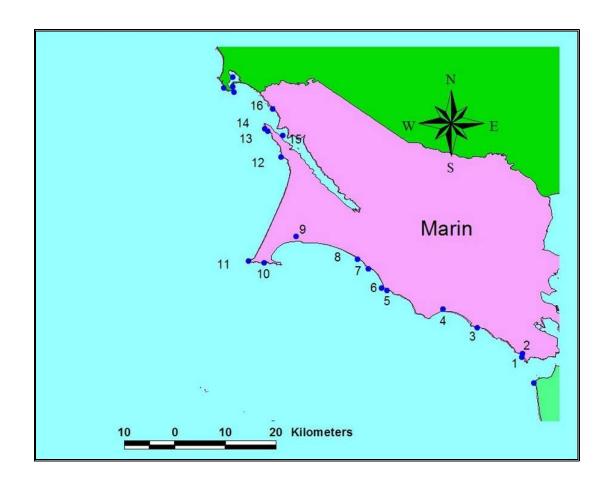


	High Counts of Brown Pelicans at Southeast Farallon Island												
Summary data provided by PRBO Conservation Science													
	Spring		Summer	r	Fall		Winter	r					
Time	Total	N	Total	N	Total	N	Total	N					
Period													
1986-	325	362	2454	367	3400	470	1500	426					
1996	(5/31/87)		(6/8/88)		(10/8/87)		(12/3/93)						
1997-	455	390	3443	659	4350	799	2550	421					
2007	(5/18/98)		(8/31/06)		(10/3/97)		(1/15/07)						
	High Count:	4,350	·		Total Counts	s in Dat	tabase: 3894	4					

Access and Site Viewing: Access is subject to permission from the USFWS, San Francisco Bay NWR and PRBO Conservation Science.

Management Concerns: USFWS Wilderness area and PRBO research policy protects the primary pelican roost from ground based disturbance.

MARIN COUNTY



Marin County	Roost Summary
County number:	11
Number of roost sites:	16
Number of confirmed night roosts	1
Roost sites with known management	
issues:	2
Roost sites with >1,000 pelicans	4: Bird Island Point Bonita, Gull Rock
	Marin, Bolinas Lagoon, Tomales Bay
Roost sites with 500- 1,000 pelicans	5: Point Resistance, Drakes Estero, Bird
	Rock Tomales, Dillon Beach Rocks

BIRD ISLAND POINT BONITA

Roost No: MA 1.0 37.8242, -122.537 Map No. 104 USFWS Colony No: 429-007 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Confirmed



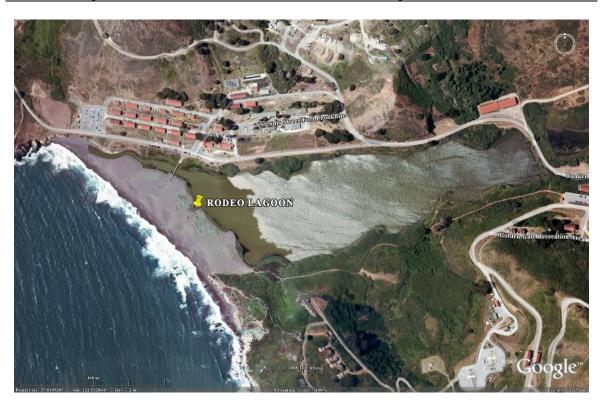
	High Counts of Brown Pelicans at Bird Island Point Bonita												
	Spring	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N					
Period													
1986-	1,261	2	2,047	10	636	9	ND	0					
1996	(5/29/90)		(7/5/86)		(9/16/87)								
1997-	ND	0	1,262	1	325	2	ND	0					
2007													
	High Count:	2,047	7		Total Counts	in Data	base: 24						

Access and Site Viewing: Excellent view of pelicans on the south side of the rock from blufftop overlook within the Golden Gate National Recreation Area, west of the YMCA. Distant view of north side from Rodeo Lagoon area.

RODEO LAGOON

Roost No: MA 2.0 37.8304, -122.536 Map No. 105 USFWS Colony No: None Owner: NPS Manager: GGNRA

Habitat: Lagoon Night Roost: Not Suitable



High Counts of Brown Pelicans at Rodeo Lagoon												
	Spring	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	111	4	35	2	ND	0				
1996			(7/5/86)		(10/17/86)							
1997-	ND	0	277	1	4	3	ND	0				
2007												
	High Count:	111			Total Counts i	n Datal	base: 10					

Access and Site Viewing: View from picnic area along Bunker Road in Golden Gate National Recreation Area or park in lot at road end and walk out on beach.

Management Concerns: Pelican mortality due to predation by River Otters.

GULL ROCK MARIN

Roost No: MA 3.0 37.8763, -122.616 Map No. 106 USFWS Colony No: 429-025 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Gull Rock Marin													
	Spring	Spring Summer Fall Winter												
Time	Total	N	Total	N	Total	N	Total	N						
Period														
1986-	ND	0	ND	0	ND	0	ND	0						
1996														
1997-	ND	0	1,225	1	413	2	ND	0						
2007	(8/31/99) (9/10/98)													
	High Count:	1,225	5		Total Counts i	n Datal	base: 3							

Access and Site Viewing: All data are from aerial surveys. No ground-based observation points have been tested.

BOLINAS LAGOON

Roost No: MA 4.0 37.9102, -122.677 Map No. 107 USFWS Colony No: None Owner: MA Manager: MA

Habitat: Estuary Night Roost: Not Suitable



	High Counts of Brown Pelicans at Bolinas Lagoon													
	Spring	Spring Summer Fall Winter												
Time	Total	N	Total	N	Total	N	Total	N						
Period														
1986-	9	1	323	4	120	6	ND	0						
1996	(5/19/90)		(6/17/87)		(9/6/86)									
1997-	ND	0	1,383	1	423	3	ND	0						
2007	,													
	High Count:	1,383	3		Total Counts	in Data	base: 15							

Access and Site Viewing: Best views are from the inner tip of the south spit and other locations to the east. Permission to access from Stinson Beach property association is required.

Management Concerns: The estuary is rapidly filling in, which may eventually degrade pelican roost habitat.

DOUBLE POINT

Roost No: MA 5.0 37.9428, -122.777 Map No. 108 USFWS Colony No: 429-003 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Double Point													
	Spring Summer Fall Winter													
Time	Total	N	Total	N	Total	N	Total	N						
Period														
1986-	9	1	ND	0	ND	0	ND	0						
1996	(5/19/90)													
1997-	ND	0	0	1	405	2	ND	0						
2007	007 (8/31/99) (9/10/98)													
	High Count:	405		•	Total Counts i	n Datal	base: 15							

Access and Site Viewing: Data are from aerial surveys. Not tested ground-based observation points.

STORMY STACK

Roost No: MA 6.0 37.947, -122.786 Map No. 109 USFWS Colony No: 429-003 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Stormy Stack													
	Spring	Spring Summer Fall Winter												
Time	Total	N	Total	N	Total	N	Total	N						
Period														
1986-	327	5	176	4	334	1	ND	0						
1996	(5/29/90)		(6/20/95)		(9/6/86)									
1997-	ND	0	0	1	150	2	ND	0						
2007	07 (8/31/99) (9/10/98)													
	High Count:	334			Total Counts i	in Datal	base: 13							

Access and Site Viewing: Data are from aerial surveys. No tested ground-based observation points.

MILLER'S POINT

Roost No: MA 7.0 37.981, -122.81 Map No. 110 USFWS Colony No: 429-002 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Miller's Point												
	Spring		Summer		Fall		Winter						
Time	Total	N	Total	N	Total	N	Total	N					
Period													
1986-	127	2	8	1	120	1	ND	0					
1996	(5/27/93)		(6/20/95)		(9/6/86)								
1997-	ND	0	16	1	ND	0	ND	0					
2007	07 (8/31/99)												
	High Count:	127			Total Counts i	n Datal	base: 5						

Access and Site Viewing: Data are from aerial surveys. No tested ground-based observation points.

POINT RESISTANCE

Roost No: MA 8.0 37.9985, -122.829 Map No. 111 USFWS Colony No: 429-024 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Point Resistance												
	Spring	Spring Summer Fall Winter											
Time	Total	N	Total	N	Total	N	Total	N					
Period													
1986-	43	4	55	2	64	1	ND	0					
1996	(5/24/99)		(6/20/95)		(9/6/86)								
1997-	ND	0	0	1	588	2	ND	0					
2007			(8/31/99)		(9/7/00)								
	High Count:	588			Total Counts i	n Datal	base: 10	•					

Access and Site Viewing: Data are from aerial surveys. No tested ground-based observation points.

DRAKES ESTERO

Roost No: MA 9.0 37.0396, -122.938 Map No. 112 USFWS Colony No: None Owner: NPS Manager: GGNRA

Habitat: Estuary Night Roost: Not Suitable



	High Counts of Brown Pelicans at Drakes Estero											
	Spring	Spring Summer Fall Winter										
Time	Total	otal N Total N Total N Total N										
Period												
1986-	ND	0	ND	0	27	1	ND	0				
1996					(9/5/86)							
1997-	ND	0	522	1	19	2	ND	0				
2007			(8/31/99)		(9/7/00)							
	High Count: 588 Total Counts in Database: 4											

Access and Site Viewing: Long beach walk from Limantour parking lot at Pt. Reyes National Seashore. No other ground-based observation points tested.

POINT REYES HEADLANDS

Roost No: MA 10.0 37.9898, -122.963 Map No. 113 USFWS Colony No: 429-001 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Point Reyes Headlands												
					ı		ı						
	Spring		Summer		Fall		Winte	r					
Time	Total	Total N Total N Total N											
Period	i												
1986-	14 1 ND 0 30 1 ND 0												
1996	(5/27/93)				(9/10/86)								
1997-	ND	0	0	1	123	2	ND	0					
2007	2007 (8/31/99) (9/7/00)												
	High Count: 123 Total Counts in Database: 5												

Access and Site Viewing: Data are from aerial surveys. No ground-based observation points tested.

LIGHTHOUSE POINT

Roost No: MA 11.0 37.9952, -122.023 Map No. 114 USFWS Colony No: 429-001 Owner: NPS Manager: GGNRA

Habitat: Mainland Cliff or Rocky Shoreline Night Roost: Unknown



	High Counts of Brown Pelicans at Lighthouse Point											
	Spring	Spring Summer Fall Winter										
Time	Total	otal N Total N Total N										
Period												
1986-	ND	ND 0 ND 0 20 1 ND 0										
1996					(9/10/86)							
1997-	ND	0	ND	0	255	3	ND	0				
2007	(11/17/07)											
	High Count:	255			Total Counts i	n Datal	base: 4					

Access and Site Viewing: Great view from the platform at the lighthouse in Point Reyes National Seashore, if not dense fog.

ELEPHANT ROCK

Roost No: MA 12.0 38.1803, -122.965 Map No. 115 USFWS Colony No: 404-041 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Elephant Rock											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N										
Period												
1986-	ND	0	ND	0	77	1	ND	0				
1996					(9/10/86)							
1997-	ND	0	8	1	102	2	ND	0				
2007			(8/27/99)		(9/11/08)							
	High Count:	102			Total Counts i	n Datal	base: 4					

Access and Site Viewing: Data are from aerial surveys. No ground-based observation points tested.

TOMALES POINT ROCKS

Roost No: MA 13.0 38.2261, -122.988 Map No. 116 USFWS Colony No: 404-041 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Tomales Point Rocks												
	Spring		Summer		Fall		Winter	r					
Time	Total	Total N Total N Total N											
Period													
1986-	ND	0	ND	0	ND	0	ND	0					
1996													
1997-	ND	0	298	1	112	2	ND	0					
2007	(8/27/99) (9/7/00)												
_	High Count:	298			Total Counts i	n Datal	pase: 3						

Access and Site Viewing: Data are from aerial surveys. No ground-based observation points tested.

BIRD ROCK TOMALES

Roost No: MA 14.0 38.2301, -122.994 Map No. 117 USFWS Colony No: 404-010 Owner: NPS Manager: GGNRA

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Bird Rock Tomales											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N										
Period												
1986-	205	4	25	1	128	1	ND	0				
1996	(5/23/88)		(6/5/95)		(9/10/86)							
1997-	ND	0	685	1	683	2	ND	0				
2007			(8/27/99)		(9/11/98)							
	High Count:	685			Total Counts i	n Datal	base: 9					

Access and Site Viewing: Data are from aerial surveys. No ground-based observation points tested.

TOMALES BAY

Roost No: MA 15.0 38.2187, -122.962 Map No. 118 USFWS Colony No: None Owner: CA Manager: CSLC

Habitat: Estuary Night Roost: Not Suitable



	High Counts of Brown Pelicans at Tomales Bay												
	Spring	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N											
Period													
1986-	ND	0	500	1	18	2	ND	0					
1996			(7/11/86)		(9/18/87)								
1997-	ND	0	1,782	1	13	2	ND	0					
2007	(8/27/99) (9/07/00)												
	High Count:	1,782	2		Total Counts i	n Datal	base: 6						

Access and Site Viewing: Pelicans roosting on sandbars and mudflats may be visible from roadside pull-outs on north side of bay.

DILLON BEACH ROCKS

Roost No: MA 16.0 38.2659, -122.98 Map No. 119 USFWS Colony No: 404-009 Owner: BLM Manager: BLM

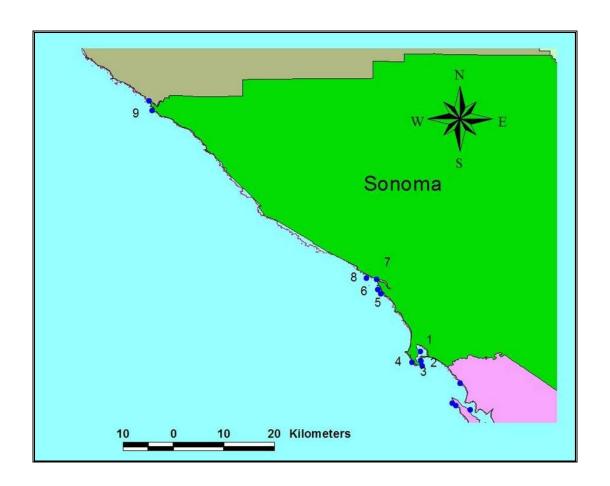
Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Dillon Beach Rocks												
_	Spring	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N											
Period													
1986-	ND	ND 0 ND 0 ND 0											
1996													
1997-	ND	0	657	1	183	2	ND	0					
2007	7 (8/27/99) (9/07/00)												
	High Count: 657 Total Counts in Database: 3												

Access and Site Viewing: Data are from aerial surveys. No ground-based observation points tested.

SONOMA COUNTY



Sonoma Count	y Roost Summary
County number:	12
Number of roost sites:	9
Number of confirmed night roosts	0
Roost sites with known management	
issues:	2
Roost sites with >1,000 pelicans	None
Roost sites with 500-1,000 pelicans	None

BODEGA BAY

Roost No: SO 1.0 38.3226, -123.051 Map No. 120 USFWS Colony No: 404-045 Owner: CA Manager: CSLC

Habitat: Estuary Night Roost: Not Suitable



	High Counts of Brown Pelicans at Bodega Bay												
	Spring	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N											
Period													
1986-	ND	ND 0 ND 0 ND 0											
1996													
1997-	ND	0	192	1	0	2	ND	0					
2007	(8/27/99) (9/07/00)												
	High Count: 192 Total Counts in Database: 3												

Access and Site Viewing: There is no known traditional roost site within the bay. View from various points off Westside drive, along the western shore.

BODEGA BAY JETTY

Roost No: SO 2.0 38.3049, -123.05 Map No. 121 USFWS Colony No: None Owner: USACE Manager: USACE

Habitat: Jetty Night Roost: Not Likely



	High Counts of Brown Pelicans at Bodega Bay Jetty												
	Spring	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N											
Period													
1986-	ND	ND 0 ND 0 ND 0											
1996													
1997-	ND	0	461	1	0	2	ND	0					
2007	(8/27/99) (9/07/00)												
_	High Count:	461			Total Counts i	n Datal	base: 3	·					

Access and Site Viewing: All data are from aerial surveys. No tested ground based observation points.

BODEGA ROCK

Roost No: SO 3.0 38.2961, -123.048 Map No. 122 USFWS Colony No: 404-008 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



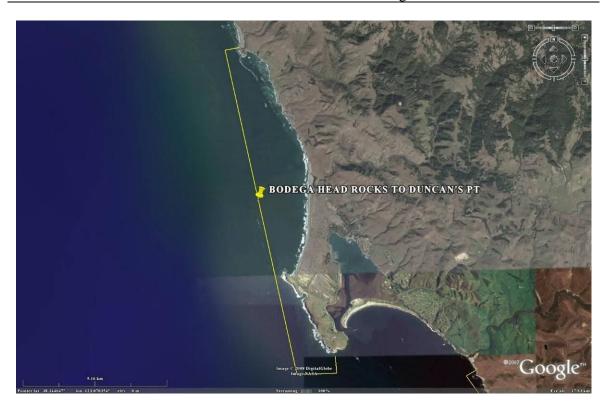
	High Counts of Brown Pelicans at Bodega Rock											
	Spring Summer Fall Winter											
Time	Total	otal N Total N Total N Total N										
Period												
1986-	6	1	ND	0	ND	0	ND	0				
1996	(5/27/93)											
1997-	ND	0	144	1	12	2	ND	0				
2007			(8/27/99)		(9/11/98)							
	High Count: 144 Total Counts in Database: 4											

Access and Site Viewing: View from trails on Bodega Head, Sonoma Coast State Beach.

BODEGA HEAD TO DUNCAN'S POINT

Roost No: SO 4.0 38.3029, -123.066 Map No. 123 USFWS Colony No: 404-038 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Bodega Head to Duncan's Point											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period	i											
1986-	ND	0	24	1	9	1	ND	0				
1996			(7/6/87)		(9/18/87)							
1997-	ND	0	15	1	10	2	ND	0				
2007			(8/27/99)		(9/7/00)							
	High Count: 24 Total Counts in Database: 7											

Access and Site Viewing: Portions of this area can be viewed from within Sonoma Coast State Beach.

GULL ROCK SONOMA

Roost No: SO 5.0 38.4248, -123.121 Map No. 124 USFWS Colony No: 404-035 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Gull Rock Sonoma											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	ND 0 ND 0 ND 0										
1996			(7/6/87)									
1997-	ND	0	0	1	128	2	ND	0				
2007	(8/27/99) (9/11/98)											
	High Count:	128			Total Counts i	n Datal	base: 3					

Access and Site Viewing: All data are from aerial surveys. No tested ground-based observation points.

ARCHED ROCK SONOMA

Roost No: SO 6.0 38.4327, -123.127 Map No. 125 USFWS Colony No: 404-006 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Arched Rock Sonoma											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	3	1	59	1	84	5	ND	0				
1996	(5/27/93)		(7/6/87)		(10/4/86)							
1997-	ND	0	0	1	164	3	ND	0				
2007			(8/27/99)		(9/11/98)							
	High Count:	164			Total Counts i	n Datal	base: 11					

Access and Site Viewing: View from blufftops within Sonoma Coast State Beach.

RUSSIAN RIVER MOUTH

Roost No: SO 7.0 38.4503, -123.147 Map No. 126 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: River Mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Russian River Mouth											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	ND 0 ND 0 63 1 ND 0										
1996					(10/4/86)							
1997-	ND	0	0	1	4	2	ND	0				
2007	(8/27/99) (9/11/98)											
	High Count:	63			Total Counts i	n Datal	base: 4					

Access and Site Viewing: View from a pull-off along Highway 1, north side of the river mouth.

Management Concerns: General human disturbance from public use.

RUSSIAN RIVER ROCKS

Roost No: SO 8.0 38.4528, -123.147 Map No. 127 USFWS Colony No: 404-005 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Russian River Rocks											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	18	18 1 35 1 13 1 ND 0										
1996	(5/27/93)		(7/6/87)		(10/3/90)							
1997-	ND	0	0	1	145	2	ND	0				
2007	(8/27/99) (9/7/00)											
	High Count: 145 Total Counts in Database: 6											

Access and Site Viewing: View from Highway 1.

GUALALA POINT ISLAND

Roost No: SO 9.0 38.7508, -123.529 Map No. 128 USFWS Colony No: 404-004 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown

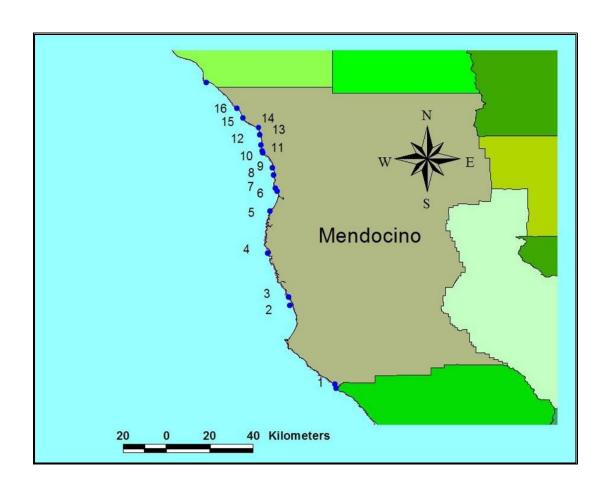


	High Counts of Brown Pelicans at Gualala Point Island											
	Spring	Spring Summer Fall Winter										
Time	Total											
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	ND	0	112	2	ND	0				
2007	(9/7/00)											
	High Count: 112 Total Counts in Database: 2											

Access and Site Viewing: All data are from ground surveys. No tested ground based observation points. Access is subject to permission from Sea Ranch development.

Management Concerns: There has been an issue with July fireworks displays, sponsored by the Sea Ranch development, causing disturbance to pelicans and other seabirds at this site.

MENDOCINO COUNTY



Mendocino Cou	nty Roost Summary
County number:	13
Number of roost sites:	16
Number of confirmed night roosts	0
Roost sites with known management	
issues:	0
Roost sites with >1,000 pelicans	None
Roost sites with 500-1,000 pelicans	None

GUALALA RIVER MOUTH

Roost No: ME 1.0 38.7685, -123.534 Map No. 129 USFWS Colony No: None Owner: SO Manager: SO

Habitat: River Mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Gualala River Mouth											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	0	ND	0	27	1	ND	0				
1996					(9/18/87)							
1997-	0	1	ND	0	36	2	ND	0				
2007	2007 (8/27/99) (9/7/00)											
	High Count:	36			Total Counts i	n Datal	base: 4					

Access and Site Viewing: River access is from dirt roads just north of the Highway 1 Gulala River bridge.

WHITE ROCK MENDOCINO

Roost No: ME 2.0 39.0951, -123.72 Map No. 130 USFWS Colony No: 379-010 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



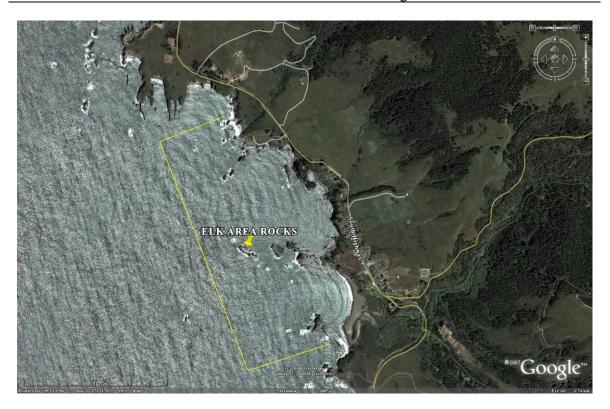
	High Counts of Brown Pelicans at White Rock Mendocino												
	Spring	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N											
Period													
1986-	ND	ND 0 ND 0 ND 0											
1996													
1997-	ND	0	121	1	3	2	ND	0					
2007	(8/27/99) (9/7/00)												
	High Count:	121			Total Counts i	n Datal	pase: 3						

Access and Site Viewing: Data are from aerial surveys. No ground survey points have been tested.

ELK AREA ROCKS

Roost No: ME 3.0 39.1309, -123.727 Map No. 132 USFWS Colony No: 379-009 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Elk Area Rocks											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	ND 0 ND 0 11 1 ND 0										
1996					(9/18/87)							
1997-	ND	0	19	1	82	2	ND	0				
2007	(8/27/99) (9/11/98)											
	High Count:	82			Total Counts i	n Datal	base: 4					

Access and Site Viewing: Most data are from aerial survey. There is beach access near the town of Elk, but specific observation points have not been documented.

DEVIL'S BASIN

Roost No: ME 4.0 39.1702, -123.749 Map No. 133 USFWS Colony No: 379-007 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Devil's Basin											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	0	1	43	2	ND	0				
2007	(8/27/99) (9/07/00)											
	High Count:	43			Total Counts i	n Datal	base: 3					

Access and Site Viewing: Data are from aerial surveys. No ground based viewpoints have been tested.

LAGUNA POINT

Roost No: ME 5.0 39.4869, -123.803 Map No. 134 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Devil's Basin to Laguna Point											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND 0 ND 0 ND 0											
1996												
1997-	ND	0	0	1	26	2	ND	0				
2007	2007 (8/27/99) (9/07/00)											
	High Count:	26			Total Counts i	n Datal	base: 3					

Access and Site Viewing: View from trails within MacKerricher State Park.

NEWPORT ROCKS

Roost No: ME 6.0 39.5679, -123.774 Map No. 135 USFWS Colony No: 370-005 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	Hig	gh Co	unts of Brown P	Pelica	ns at Newport R	locks				
	Spring		Summer		Fall		Winte	r		
Time	Total	N	Total	N	Total	N	Total	N		
Period										
1986-	ND	0	ND	0	ND	0	ND	0		
1996										
1997-	ND	0	64	1	0	2	ND	0		
2007	(8/27/99) (9/07/00)									
	High Count: 64 Total Counts in Database: 3									

Access and Site Viewing: Part of the area can be viewed from Highway 1.

KIBESILLAH ROCKS

Roost No: ME 7.0 39.5803, -123.781 Map No. 136 USFWS Colony No: 379-004 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	Hig	h Cou	ints of Brown Pe	elican	s at Kibesillah I	Rocks					
	Spring	Spring Summer Fall Winter									
Time	Total	N	N	Total	N						
Period											
1986-	ND	0	41	1	97	2	ND	0			
1996			(7/6/87)		(10/5/86)						
1997-	ND	0	19	1	41	2	ND	0			
2007	(8/27/99) (9/11/98)										
	High Count: 97 Total Counts in Database: 6										

Access and Site Viewing: There is a road leading to a good view of the rock from Highway 1; may be posted as the Kibesillah Gulch Overlook.

WESTPORT ROCKS

Roost No: ME 8.0 39.637, -123.788 Map No. 137 USFWS Colony No: 370-018 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



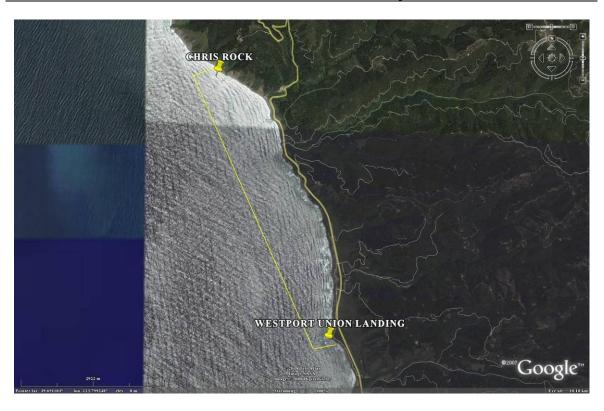
	Hig	gh Cou	unts of Brown P	elica	ns at Westport R	Rocks			
	Spring Summer Fall Winter								
Time	Total	N	Total	Total	N	Total	N		
Period									
1986-	ND	0	57	1	64	2	ND	0	
1996			(7/6/87)		(9/19/87)				
1997-	ND	0	0	1	202	2	ND	0	
2007	07 (8/27/99) (9/7/00)								
	High Count: 202 Total Counts in Database: 6								

Access and Site Viewing: There are shore-based views of this area, but exact locations have not been documented.

WESTPORT UNION LANDING TO CHRIS ROCKS

Roost No: ME 9.0 39.6665, -123.793 Map No. 138 USFWS Colony No: 379-017 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



Н	High Counts of	Brow	n Pelicans at W	estpo	rt Union Landir	g to Cl	hris Rocks		
	Spring		Summer		Fall		Winte	r	
Time	Total N Total N Total N								
Period	od								
1986-	ND	0	ND	0	ND	0	ND	0	
1996									
1997-	ND	0	2	1	38	2	ND	0	
2007	2007 (8/27/99) (9/7/00)								
	High Count: 38 Total Counts in Database: 3								

Access and Site Viewing: Portions of this area can be viewed from public roads. Exact observations points have not been documented.

CAPE VIZCAINO

Roost No: ME 10.0 39.7271, -123.833 Map No. 139 USFWS Colony No: 379-002 Owner: PRIV Manager: UK

Habitat: Offshore Rock Night Roost: Unknown



	Hi	gh Co	unts of Brown I	Pelica	ns at Cape Vizc	aino			
	Spring	Spring Summer Fall Winter							
Time	Total	N	Total	N	Total	N	Total	N	
Period									
1986-	ND	0	87	1	ND	0	ND	0	
1996			(7/6/87)						
1997-	ND	0	0	1	364	2	ND	0	
2007	(8/27/99) (9/11/98)								
	High Count: 364 Total Counts in Database: 4								

Access and Site Viewing: All data are from aerial surveys. No tested ground-based observation points.

ROCKPORT LANDING ROCKS

Roost No: ME 11.0 39.7359, -123.835 Map No. 140 USFWS Colony No: 379-001 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Rockport Landing Rocks										
	Spring		Summer		Fall		Winte	r			
Time	Total	otal N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	12	1	290	2	ND	0			
2007	(8/27/99) (9/7/00)										
	High Count: 290 Total Counts in Database: 3										

Access and Site Viewing: All data are from aerial surveys. No tested ground-based observation points.

SOLDIER FRANK POINT

Roost No: ME 12.0 39.7604, -123.84 Map No. 141 USFWS Colony No: 379-016 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High	Coun	ts of Brown Pel	icans	at Soldier Frank	k Point				
_	Spring		Summer		Fall		Winte	r		
Time	Total	Total N Total N Total N Total N								
Period										
1986-	ND	0	ND	0	5	1	ND	0		
1996					(9/13/88)					
1997-	ND	0	0	1	233	2	ND	0		
2007	(8/27/99) (9/11/98)									
	High Count: 233 Total Counts in Database: 4									

Access and Site Viewing: Most data are from aerial surveys. No documented ground-based observation points.

USAL ROCK

Roost No: ME 13.0 39.8036, -123.846 Map No. 142 USFWS Colony No: 379-015 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



]	High (Counts of Brown	n Peli	cans at Usal Ro	ck			
	Spring	Spring Summer Fall Winter							
Time	Total	N	Total	N	Total	N	Total	N	
Period									
1986-	ND	0	ND	0	ND	0	ND	0	
1996									
1997-	ND	0	0	1	60	2	ND	0	
2007	07 (8/27/99) (9/11/98)								
	High Count: 60 Total Counts in Database: 3								

Access and Site Viewing: All data are from aerial surveys. No tested ground-based observation points.

USAL CREEK MOUTH

Roost No: ME 14.0 39.8318, -123.851 Map No. 143 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: Creek Mouth Night Roost: Not Suitable



	High	ı Cou	nts of Brown Pe	licans	s at Usal Creek I	Mouth					
	Spring	Spring Summer Fall Winter									
Time	Total	Total N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	ND	0	184	1	ND	0			
2007	7 (9/11/98)										
	High Count: 184 Total Counts in Database: 1										

Access and Site Viewing: All data re from aerial surveys. Creek mouth is accessible from Usal Road, a dirt road within Sinkyone Wilderness State Park.

ANDERSON CLIFFS

Roost No: ME 15.0 39.8736, -123.915 Map No. 144 USFWS Colony No: 379-013 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	Hig	gh Cou	ınts of Brown P	elicai	ns at Anderson (Cliffs				
	Spring		Summer		Fall		Winte	r		
Time	Total	Total N Total N Total N Total N								
Period										
1986-	ND	0	ND	0	ND	0	ND	0		
1996										
1997-	ND	2	ND	0						
2007	(8/27/99) (9/7/00)									
	High Count: 134 Total Counts in Database: 3									

Access and Site Viewing: All data are from aerial surveys. No tested ground-based observation points.

BEAR HARBOR ROCKS

Roost No: ME 16.0 39.9125, -123.941 Map No. 145 USFWS Colony No: 379-012 Owner: BLM Manager: BLM

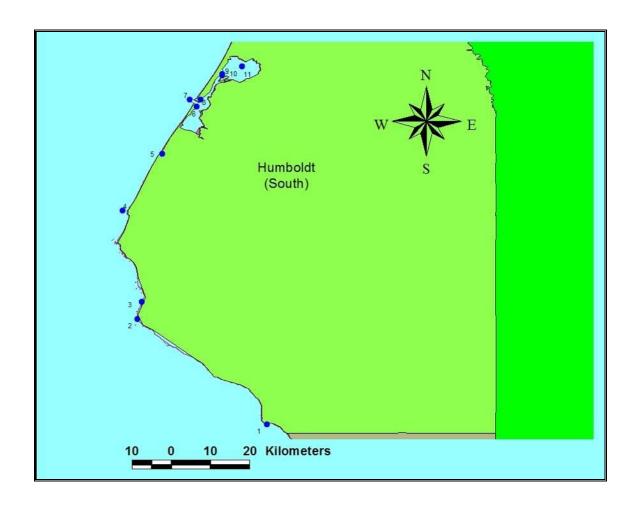
Habitat: Offshore Rock Night Roost: Unknown



	Hig	h Cour	nts of Brown Pe	licans	at Bear Harbon	Rocks		
	Spring	<u> </u>	Summer		Fall		Winte	er
Time	Total	N	Total	N	Total	N	Total	N
Period								
1986-	ND	0	ND	0	ND	0	ND	0
1996								
1997-	ND	0	27	1	431	2	ND	0
2007			(8/27/99)		(9/11/00)			
	High Count	: 431			Total Counts	in Datal	base: 3	•

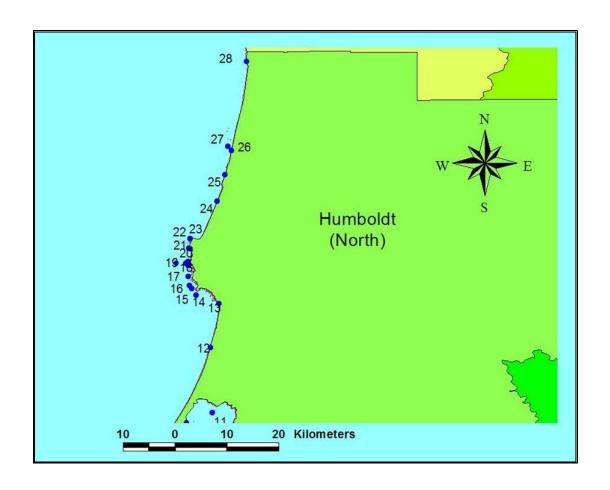
Access and Site Viewing: All data are from aerial surveys. No tested ground-based observation points.

HUMBOLDT COUNTY



Humboldt Coun	ty Roost Summary
County number:	14
Number of roost sites:	28
Number of confirmed night roosts	0
Roost sites with known management	
issues:	10
Roost sites with >1,000 pelicans	None
Roost sites with 500-1,000 pelicans	None

HUMBOLDT COUNTY (NORTH)



Humboldt Coun	ty Roost Summary
County number:	14
Number of roost sites:	28
Number of confirmed night roosts	0
Roost sites with known management	
issues:	10
Roost sites with >1,000 pelicans	None
Roost sites with 500-1,000 pelicans	None

POINT DELGADA

Roost No: HU 1.0 40.0206, -124.67 Map No. 146 USFWS Colony No: None Owner: CA Manager: CSLC

Habitat: Offshore Rock and Beach Night Roost: Not Suitable



	Н	igh Co	ounts of Brown	Pelica	ans at Point Delg	gada					
					T		T				
	Spring	Spring Summer Fall Winter									
Time	Total										
Period											
1986-	ND	0	440	3	465	5	ND	0			
1996			(7/31/86)		(9/1/86)						
1997-	ND	0	5	1	202	2	ND	0			
2007			(8/27/99)		(9/07/00)						
	High Count:	465			Total Counts i	n Datal	base: 11				

Access: View from public beach off Machi Road in Shelter Cove.

GORDA ROCK

Roost No: HU 2.0 40.2622, -124.364 Map No. 147 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



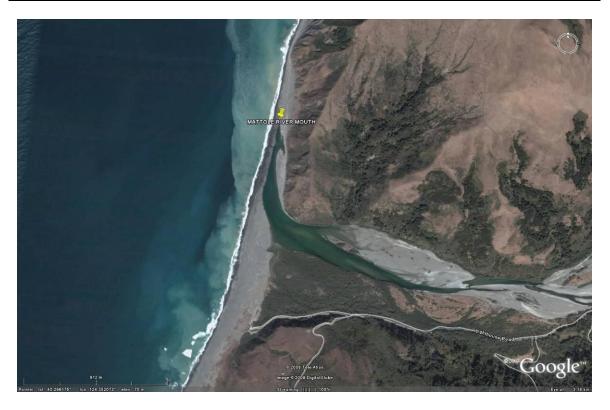
	High Counts of Brown Pelicans at Gorda Rock										
	Spring Summer Fall Winter										
Time Period	Total										
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	ND	0	92	2	ND	0			
2007					(9/07/00)						
	High Count:	92			Total Counts i	n Datal	base: 2				

Access and Site Viewing: Aerial, possibly from west end of Windy Point Road.

MATTOLE RIVER MOUTH

Roost No: HU 3.0 40.301, -124.354 Map No. 148 USFWS Colony No: None Owner: BLM Manager: BLM

Habitat: River mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Mattole River Mouth											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND	0	ND	0	37	2	ND	0				
1996					(10/8/87)							
1997-	ND	0	0	1	83	2	ND	0				
2007			(8/27/99)		(9/07/00)							
	High Count:	83			Total Counts i	n Datal	base: 5					

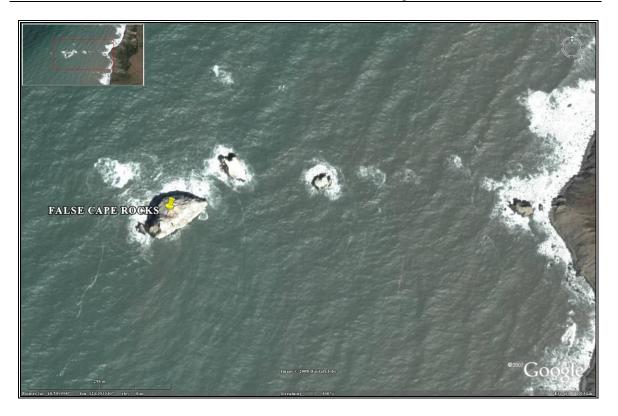
Access and Site Viewing:

Management Concerns:

FALSE CAPE ROCKS

Roost No: HU 4.0 40.5099, -124.397 Map No. 149 USFWS Colony No: 325-040 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High	h Cou	nts of Brown Pe	lican	s at False Cape l	Rocks						
	Spring	Spring Summer Fall Winter										
Time	Total											
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	17	1	82	2	ND	0				
2007			(8/27/99)		(9/07/00)							
	High Count:	82			Total Counts is	n Datal	base: 3					

Access and Site Viewing: Aerial only.

EEL RIVER MOUTH

Roost No: HU 5.0 40.6396, -124.307 Map No. 150 USFWS Colony No: Owner: CDFG Manager: CDFG

Habitat: River Mouth Night Roost: Not Suitable



	Hig	h Cou	ints of Brown Po	elican	ns at Eel River N	louth						
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND	0	93	2	20	3	ND	0				
1996			(7/17/87)		(10/6/86)							
1997-	ND	0	2	1	119	4	ND	0				
2007			(8/27/99)		(11/10/97)							
	High Count:	119			Total Counts i	n Datal	pase: 10					

Access and Site Viewing: Cannibal Island Road to public parking lot at estuary.

Management Concerns: Disturbance from public recreation, vehicles.

HUMBOLDT BAY SOUTH SPIT

Roost No: HU 6.0 40.7484, -124.228 Map No. 151 USFWS Colony No: None Owner: CDFG Manager: BLM

Habitat: Estuary Night Roost: Not Suitable



	High Co	ounts o	of Brown Pelica	ns at	Humboldt Bay	South S	Spit				
	Spring Summer Fall Winter										
Time	Total										
Period											
1986-	ND	0	ND	0	59	2	ND	0			
1996					(10/6/86)						
1997-	ND	0	2	1	312	5	ND	0			
2007			(8/27/99)		(9/7/00)						
	High Count:	312			Total Counts i	n Datal	base: 8				

Access and Site Viewing: Approach cautiously from South Jetty Road spur or view from across bay.

Management Concerns: Pedestrian disturbance.

HUMBOLDT BAY SOUTH JETTY

Roost No: HU 7.0 40.7647, -124.244 Map No. 152 USFWS Colony No: Owner: USACE Manager: USACE

Habitat: Jetty Night Roost: Unlikely



	High Counts of Brown Pelicans at Humboldt Bay South Jetty										
	Spring Summer Fall Winter										
Time	Total	1 &									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	ND	0	47	2	ND	0			
2007					(9/7/00)						
	High Count:	47			Total Counts i	n Datal	base: 2	•			

Access and Site Viewing: Somoa Peninsula at end of Samoa Road.

Management Concerns: None known. Wind and wave exposure probably limits use of site.

COAST GUARD JETTY HUMBOLDT

Roost No: HU 8.0 40.7643, -124.219 Map No. 153 USFWS Colony No: None Owner: UK Manager: UK

Habitat: Jetty Night Roost: Unlikely



	High Counts of Brown Pelicans at Coast Guard Jetty Humboldt											
	Spring Summer Fall Winter											
Time	Total	1 8										
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	30	1	260	4	ND	0				
2007			(8/27/99)		(9/7/00)							
	High Count:	260			Total Counts in	n Datal	base: 5					

Access and Site Viewing: View from beach along Samoa Road at west end of Samoa Peninsula.

Management Concerns: Human disturbance from public recreational activities.

MANILLA OYSTER RACKS

Roost No: HU 9.0 40.8234, -124.169 Map No. 154 USFWS Colony No: None Owner: PRIV Manager: PRIV

Habitat: Artificial Structure Night Roost: Unknown



	High Counts of Brown Pelicans at Manilla Oyster Racks											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	116	1	135	8	ND	0				
2007			(8/27/99)		(9/11/98)							
	High Count:	116			Total Counts in	n Datal	base: 9					

Access and Site Viewing: View from Vance Avenue at western base of Samoa Bridge.

Management Concerns: Privately owned artificial structures, subject to disturbance from commercial activities.

SAND ISLAND ARCATA

Roost No: HU 10.0 40.8403, -124.124 Map No. 155 USFWS Colony No: 325-066 Owner: UK Manager: UK

Habitat: Estuary Night Roost: Unknown



	High Counts of Brown Pelicans at Arcata Bay Islets											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	350	2	2	2	ND	0				
2007			(7/22/05)		(9/7/00)							
	High Count:	350			Total Counts i	n Datal	base: 4					

Access and Site Viewing: Aerial or boat. Shore based observation points unknown.

ARCATA BAY OTHER

Roost No: HU 11.0 40.8208, -124.169 Map No. 156 USFWS Colony No: None Owner: MIX Manager: MIX

Habitat: Estuarine Mudflats and Artificial Structures Night Roost: Unlikely



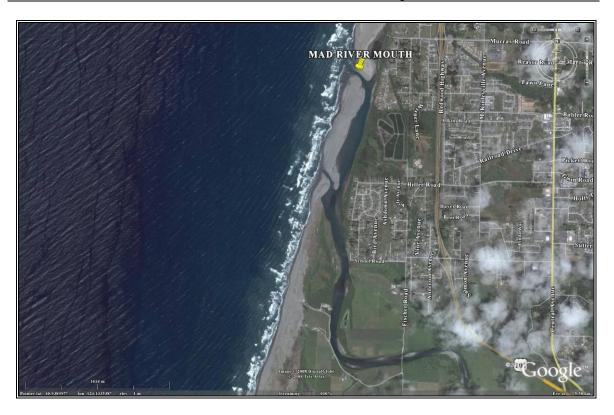
	High Counts of Brown Pelicans at Arcata Bay Other											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	ND	0	27	4	ND	0				
2007	(11/13/97)											
	High Count:	27			Total Counts in	n Datal	base: 4					

Access and Site Viewing: Various shoreline locations. Including Indian Head Island and Vance Road viewpoints.

MAD RIVER MOUTH

Roost No: HU 12.0 40.9529, -124.127 Map No. 157 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: River mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Mad River Mouth										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	0	1	183	8	ND	0			
2007			(8/27/99)		(11/10/97)						
	High Count:	183			Total Counts in	n Datal	base: 9				

Access and Site Viewing: Depends on location of shifting mouth. Possible view from end of Murray Road; beach access from Mad River Beach County Park off of Mad River Road, south of river.

Management Concerns: Human disturbance from public recreation, dogs, horses, and vehicles.

LITTLE RIVER MOUTH

Roost No: HU 13.0 41.0292, -124.113 Map No. 158 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: River mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Little River Mouth										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	0	1	22	5	ND	0			
2007			(8/27/99)		(11/10/97)						
	High Count	: 22			Total Counts i	n Datal	base: 6				

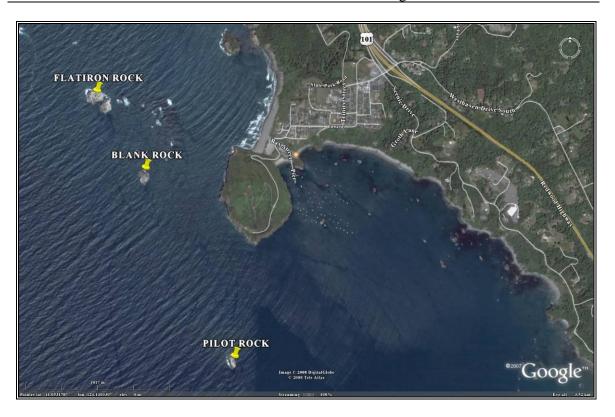
Access and Site Viewing: View from public beach at end of Moonstone Beach Road.

Management Concerns: Human disturbance from public recreation, dogs, horses, and vehicles.

PILOT ROCK

Roost No: HU 14.0 41.0435, -124.152 Map No. 159 USFWS Colony No: 325-026 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Pilot Rock									
	Spring	Spring Summer Fall Winter								
Time	Total	N	Total	N	Total	N	Total	N		
Period										
1986-	ND	0	ND	0	9	1	ND	0		
1996										
1997-	ND	0	0	1	217	8	ND	0		
2007			(8/27/99)		(11/8/97)					
	High Count:	217			Total Counts i	n Datal	base: 10			

Access and Site Viewing: Best view is from Coast Guard Station on Trinidad Head; permission required. Alternate view from public park at corner of Edwards and Trinity Street.

BLANK ROCK

Roost No: HU 15.0 41.0553, -124.16 Map No. 160 USFWS Colony No: 325-024 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Blank Rock											
	Spring	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	42	1	9	1	ND	0				
1996												
1997-	ND	0	5	1	217	8	ND	0				
2007			(8/27/99)		(11/8/97)							
	High Count:	217			Total Counts i	n Datal	base: 12					

Access and Site Viewing: View from parking lot/overlook at north end of Ewing Street in Trinidad.

Management Concerns: Disturbance from low-flying aircraft.

FLATIRON ROCK

Roost No: HU 16.0 41.0601, -124.164 Map No. 161 USFWS Colony No: 325-023 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Flatiron Rock										
	Spring Summer Fall Winter							r			
Time	Total	Fotal N Total N Total N To									
Period											
1986-	1	1	161	1	ND	0	ND	0			
1996	(4/26/05)		(7/19/87)								
1997-	ND	0	1	1	325	9	ND	0			
2007			(8/27/99)		(11/13/97)						
	High Count: 325 Total Counts in Database: 12										

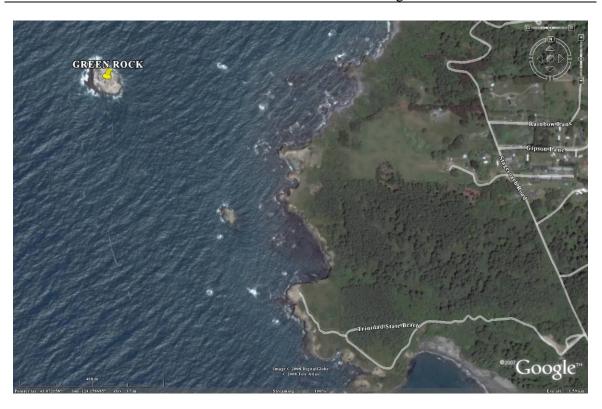
Access and Site Viewing: View from parking lot/overlook at north end of Ewing Street in Trinidad.

Management Concerns: Disturbance form low-flying aircraft.

GREEN ROCK

Roost No: HU 17.0 41.0756, -124.166 Map No. 162 USFWS Colony No: 325-020 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Green Rock										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	0	1	434	7	ND	0			
2007			(8/27/99)		(11/11/97)						
	High Count:	434			Total Counts is	n Datal	base: 8	•			

Access and Site Viewing: Walk trail to cliff's edge at Trinidad State Beach.

SEA LION ROCK TRINIDAD

Roost No: HU 18.0 41.0951, -124.166 Map No. 163 USFWS Colony No: 325-018 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



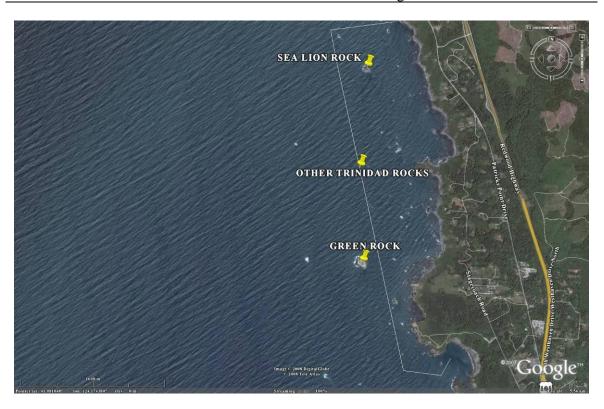
	High Counts of Brown Pelicans at Sea Lion Rock Trinidad											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N										
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	0	1	157	6	ND	0				
2007	07 (8/27/99) (11/11/97)											
	High Count: 157 Total Counts in Database: 12											

Access and Site Viewing: Look for pulloff on Patrick's Point Drive.

OTHER TRINIDAD ROCKS

Roost No: HU 19.0 41.0985, -124.17 Map No. 164 USFWS Colony No: 325-053 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Other Trinidad Rocks										
	Spring Summer Fall Winter										
Time	Total	otal N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	0	1	26	5	ND	0			
2007			(8/27/99)		(11/11/97)						
High Count: 26 Total Counts in Datab											

Access and Site Viewing: View from trails at Elk Head, Trinidad State Park and various locations along Patrick's Point Drive.

SCOTTY POINT ROCKS

Roost No: HU 20.0 41.1019, -124.166 Map No. 165 USFWS Colony No: 325-052 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Scotty Point Rocks											
	Spring Summer Fall Winter											
Time	Total	otal N Total N Total N Total N										
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	0	1	89	6	ND	0				
2007	(8/27/99) (11/11/97)											
	High Count: 89 Total Counts in Database: 7											

Access and Site Viewing: Shore-based observation point unknown.

GULL ROCK HUMBOLDT

Roost No: HU 21.0 41.1238, -124.163 Map No. 166 USFWS Colony No: 325-017 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Gull Rock Humboldt										
	Spring Summer Fall Winter										
Time	Total	otal N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	0	1	296	7	ND	0			
2007	(8/27/99) (11/12/97)										
High Count: 296 Total Counts in Database: 8											

Access and Site Viewing: Private access only from blufftop. Permission required.

GULL ROCK AREA

Roost No: HU 22.0 41.1254, -124.165 Map No. 167 USFWS Colony No: 325-052 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Gull Rock Area										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N					
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	0	1	84	4	ND	0			
2007			(8/27/99)		(11/9/97)						
	High Count:	Total Counts i	n Data	base: 5							

Access and Site Viewing: Private access only from blufftop. Permission required.

PATRICK'S POINT

Roost No: HU 23.0 41.1419, -124.163 Map No. 168 USFWS Colony No: 325-016 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Patrick's Point										
	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	0	1	12	3	ND	0			
2007			(8/27/99)		(9/7/00)						
	High Count: 12 Total Counts in Database: 4										

Access and Site Viewing: View from within Patrick's Point State Park, Wedding Rock area.

BIG LAGOON

Roost No: HU 24.0 41.206, -124.116 Map No. 169 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: Lagoon Night Roost: Not Suitable



	High Counts of Brown Pelicans at Big Lagoon											
	Spring Summer Fall Winter											
Time	Total											
Period												
1986-	ND	ND 0 ND 0 69 1 ND 0										
1996												
1997-	ND	0	0	1	298	4	ND	0				
2007			(8/27/99)		(10/18/97)							
	High Count: 298 Total Counts in Database: 6											

Access and Site Viewing: Overlook from Highway 101 pull-offs.

Management Concerns: Human disturbance from public recreation.

STONE LAGOON

Roost No: HU 25.0 41.2518, -124.108 Map No. 170 USFWS Colony No: None Owner: CDPR Manager: CDPR

Habitat: Lagoon Night Roost: Not Suitable



	High Counts of Brown Pelicans at Stone Lagoon											
	Spring Summer Fall Winter											
Time	Total	otal N Total N Total N Total N										
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	ND	0	24	3	ND	0				
2007					(9/7/00)							
	High Count: 24 Total Counts in Database: 3											

Access and Site Viewing: Overlook from Highway 101 pull-offs.

REDWOOD CREEK MOUTH

Roost No: HU 26.0 41.2931, -124.091 Map No. 171 USFWS Colony No: None Owner: NPS Manager: RNP

Habitat: Creek Mouth Night Roost: Not Suitable



	High	Counts	of Brown Pelic	ans a	t Redwood Cree	ek Mou	th				
	Spring	<u> </u>	Summer		Fall		Winte	r			
Time	Total	Total N Total N Total N									
Period											
1986-	ND	0	ND	0	11	1	ND	0			
1996					(10/7/86)						
1997-	ND	0	ND	0	10	2	ND	0			
2007					(9/11/00)						
	High Count	: 11			Total Counts i	n Datal	base: 3	•			

Access and Site Viewing: View from beach near National Park visitor center off Highway 101.

Management Concerns: Human disturbance from public recreation.

REQUA ROCK

Roost No: HU 27.0 41.301, -124.097 Map No. 172 USFWS Colony No: None Owner: NPS Manager: RNP

Habitat: Offshore Rock Night Roost: Unlikely



	High Counts of Brown Pelicans at Requa Rock											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	0	55	1	43	4	ND	0				
1996			(7/6/87)		(9/14/88)							
1997-	ND	0	3	1	129	2	ND	0				
2007			(8/27/99)		(9/11/98)							
	High Count: 55 Total Counts in Database: 8											

Access and Site Viewing: View from beach near National Park visitor center off Highway 101.

OSSAGON CREEK MOUTH

Roost No: HU 28.0 41.4476, -124.065 Map No. 173 USFWS Colony No: None Owner: NPS Manager: RNP

Habitat: Creek Mouth Night Roost: Not Suitable

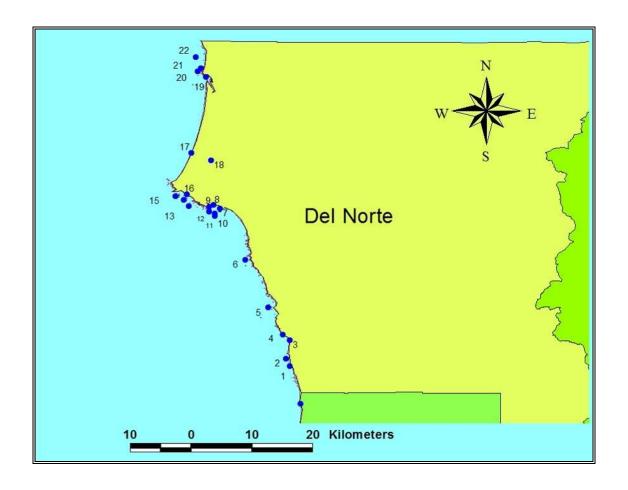


	High Counts of Brown Pelicans at Ossagon Creek Mouth											
	Spring	Spring Summer Fall Winter										
Time	Total	Total N Total N Total N										
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	5	1	190	2	ND	0				
2007			(8/27/99)		(9/7/00)							
	High Count:	igh Count: 190 Total Counts in Database: 3										

Access and Site Viewing: Aerial survey or access beach from Prairie Creek State Park.

Management Concerns: None known. Possibly human disturbance from public recreation possible, but this has not been documented. Not a significant roost site.

DEL NORTE COUNTY



Del Norte Coun	ty Roost Summary
County number:	15
Number of roost sites:	22
Number of confirmed night roosts	4
Roost sites with known management	
issues:	9
Roost sites with >1,000 pelicans	2: Castle Rock NWR, White Rock Klamath
Roost sites with 500-1,000 pelicans	4: White Rock Klamath, Klamath River
	Mouth, Crescent City Sewage Beach,
	Tolowa Rocks, Smith River Mouth

HIGH BLUFF ROCKS

Roost No: DN 1.0 41.5043, -124.081 Map No. 174 USFWS Colony No: 325-061 Owner: NPS Manager: RNP

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at High Bluff Rocks											
	Spring	Spring Summer Fall Winter										
Time	Total	N	Total	Total	N	Total	N					
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	0	1	202	2	ND	0				
2007			(8/27/99)		(9/7/00)							
	High Count:	gh Count: 202 Total Counts in Database: 3										

Access and Site Viewing: Overlook at Rock Quarry along Coastal Drive.

WHITE ROCK KLAMATH

Roost No: DN 2.0 41.5156, -124.086 Map No. 175 USFWS Colony No: 325-012 Owner: NPS Manager: RNP

Habitat: Offshore Rock Night Roost: Confirmed



	High Counts of Brown Pelicans at White Rock Klamath												
	Spring Summer Fall Winter												
Time	Total	Total N Total N Total N Total N											
Period													
1986-	ND	ND 0 292 1 293 6 ND 0											
1996			(7/6/87)		(9/15/88)								
1997-	ND	0	31	2	771	4	ND	0					
2007			(8/8/91)		(9/11/98)								
	High Count: 771 Total Counts in Database: 13												

Access and Site Viewing: Overlook along Coastal Drive.

KLAMATH RIVER MOUTH

Roost No: DN 3.0 41.5436, -124.081 Map No. 176 USFWS Colony No: 325-012 Owner: NPS Manager: RNP

Habitat: River Mouth Night Roost: Not



	High Counts of Brown Pelicans at Klamath River Mouth											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	ND 0 800 4 256 9 ND 0										
1996			(7/18/87)		(9/14/88)							
1997-	ND	0	119	2	188	4	ND	0				
2007	(8/16/87) (9/11/98)											
	High Count: 800 Total Counts in Database: 20											

Access and Site Viewing: View from beach or overlooks off Klamath Beach Road.

Management Concerns: Site is chronically disturbed by a variety of sources, including boating, shooting, sport, commercial and tribal fishing, as well as general recreational activities.

RADAR STATION ROCKS

Roost No: DN 4.0 41.5436, -124.081 Map No. 177 USFWS Colony No: Owner: NPS Manager: RNP

Habitat: Offshore Rock Night Roost: Unknown



	High	Coun	ts of Brown Pel	icans	at Radar Station	n Rocks	S					
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N										
Period												
1986-	ND	0	57	1	ND	0	ND	0				
1996			(8/29/91)									
1997-	ND	0	12	1	46	1	ND	0				
2007			(8/27/99)		(9/11/98)							
	High Count:	High Count: 57 Total Counts in Database: 3										

Access and Site Viewing: View from overlook off Patrick J.Murphy Drive.

FALSE KLAMATH ROCK

Roost No: DN 5.0 41.5941, -124.112 Map No. 178 USFWS Colony No: 325-010 Owner: NPS Manager: RNP

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at False Klamath Rock											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N										
Period												
1986-	ND	ND 0 ND 0 105 1 ND 0										
1996					(9/15/88)							
1997-	ND	0	11	1	276	3	ND	0				
2007	(8/27/99) (9/13/98)											
	High Count: 276 otal Counts in Database: 5											

Access and Site Viewing: View from adjacent parking lot or beach off Highway 101.

HUMPBACK ROCK

Roost No: DN 6.0 41.6662, -124.146 Map No. 179 USFWS Colony No: 325-048 Owner: NPS Manager: RNP

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Humpback Rock											
	Spring Summer Fall Winter											
Time	Total	Total N Total N Total N Total N										
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	21	3	30	1	ND	0				
2007			(7/27/98)		(9/11/98)							
	High Count: 30 otal Counts in Database: 4											

Access and Site Viewing: Aerial or boat only. No efficient ground survey point known.

CRESCENT CITY HARBOR

Roost No: DN 7.0 41.7435, -124.184 Map No. 180 USFWS Colony No: 325-045 Owner: CCHD Manager: CCHD

Habitat: Man Made Structure Night Roost: No



	High Counts of Brown Pelicans at Crescent City Harbor										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	0	2	ND	0			
1996					(10/19/90)						
1997-	ND	0	187	8	332	14	0	1			
2007			(8/19/07)		(11/15/97)		(12/5/03)				
	High Count:	332	otal Counts in	Databa	ase: 25						

Access and Site Viewing: View from parking lot on Anchor Bay Drive.

Management Concerns: Artificial structures in harbor are not reliably available to pelicans.

ELK CREEK MOUTH

Roost No: DN 8.0 41.7493, -124.193 Map No. 181 USFWS Colony No: None Owner: CA Manager: CSLC

Habitat: Creek Mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Elk Creek Mouth									
	Spring	Spring Summer Fall Winter								
Time	Total	N	Total	N	Total	N	Total	N		
Period										
1986-	ND	0	ND	0	ND	0	ND	0		
1996										
1997-	ND	0	137	5	300	10	0	1		
2007			(6/11/04)		(11/16/97)		(12/5/03)			
	High Count:	300			Total Counts in	n Datal	pase: 15			

Access and Site Viewing: View from parking lot at junction of Howe and H Street.

Management Concerns: Site is chronically disturbed by sport and commercial fisherman, dogs, and general public recreation activities.

CRESCENT CITY SEWAGE BEACH

Roost No: DN 9.0 41.7465, -124.2 Map No. 182 USFWS Colony No: None Owner: CITY Manager: CITY

Habitat: Creek Mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Crescent City Sewage Beach										
	Spring	Spring Summer Fall Winter									
Time	Total	tal N Total N Total N Total N									
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	ND	0	510	2	ND	0			
2007					(11/16/97)						
	High Count:	510			Total Counts i	n Datal	base: 2				

Access and Site Viewing: View from South B. Street.

Management Concerns: Site provides important storm shelter for pelicans but is too heavily disturbed to be a traditional roost.

CRESCENT CITY HARBOR JETTY

Roost No: DN 10.0 41.7435, -124.184 Map No. 183 USFWS Colony No: 325-045 Owner: USACE Manager: USACE

Habitat: Jetty Night Roost: Unlikely



	High Counts of Brown Pelicans at Crescent City Harbor Jetty										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	1	1	49	2	ND	0	ND	0			
2007	(5/20/99)		(6/9/04)								
	High Count:	49		Total Counts in Database: 3							

Access and Site Viewing: View from across harbor on Whaler Island.

ROUND ROCK

Roost No: DN 11.0 41.7321 -124.191 Map No. 184 USFWS Colony No: 325-045 Owner: CCHD Manager: CCHD

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Round Rock										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	7	1	ND	0	ND	0			
1996			(7/18/87)								
1997-	ND	0	0	1	107	5	ND	0			
2007			(8/27/99)		(10/28/03)						
	High Count:		Total Counts in Database: 7								

Access and Site Viewing: View from across harbor on Whaler Island.

STEAMBOAT ROCK

Roost No: DN 12.0 417389. -124.2 Map No. 185 USFWS Colony No: 325-045 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Steamboat Rock										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	0	1	58	3	ND	0			
2007			(8/27/99)		(9/8/00)						
	High Count:	58			Total Counts i	n Datal	base: 4				

Access and Site Viewing: View from across harbor on Whaler Island or from base of jetty on A Street.

WHITE ROCK CRESCENT CITY

Roost No: DN 13.0 41.7473, -124.23 Map No. 186 USFWS Colony No: 325-008 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Confirmed



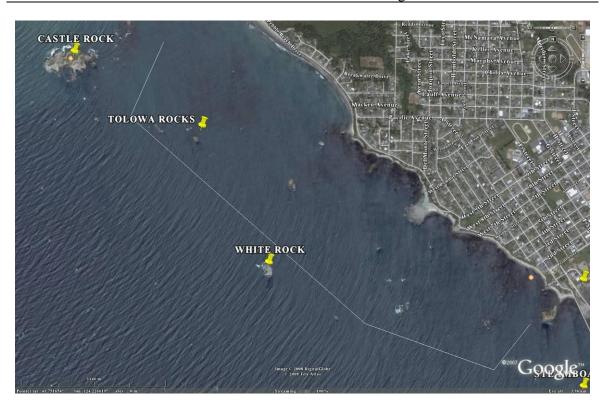
	High Counts of Brown Pelicans at White Rock Crescent City										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	168	2	ND	0			
1996											
1997-	15	1	230	4	210	16	ND	0			
2007	(5/13/04)		(6/3//98)		(10/28/00)						
	High Count:	230			Total Counts in	n Datal	pase: 23				

Access and Site Viewing: View from pull-outs on South Pebble Beach Drive.

TOLOWA ROCKS

Roost No: DN 14.0 41.7564, -124.237 Map No. 187 USFWS Colony No: 325-007 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Tolowa Rocks									
	Spring	Spring Summer Fall Winter								
Time	Total	N	Total	N	Total	N	Total	N		
Period										
1986-	ND	0	ND	0	11	1	ND	0		
1996					(9/15/88)					
1997-	15	1	230	4	702	4	ND	0		
2007	(5/13/04)		(6/3//98)		(11/12/03)					
	High Count:	702			Total Counts i	n Datal	base: 10			

Access and Site Viewing: View from pull-outs on North Pebble Beach Drive.

CASTLE ROCK NATIONAL WILDLIFE REFUGE

Roost No: DN 15.0 41.762, -124.249 Map No. 188 USFWS Colony No: 325-006 Owner: USFWS Manager: USFWS

Habitat: Offshore Rock Night Roost: Confirmed



	High Counts of Brown Pelicans at Castle Rock NWR										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	58	13	467	13	3,155	21	ND	0			
2007	(5/16/98)		(8/19/07)		(11/13/03)						
	High Count:	3,155	5		Total Counts i	n Datal	base: 47				

Access and Site Viewing: Castle Rock is closed to public access. View from Point St. George, various pull-outs on North Pebble Beach Drive, or by boat.

Management Concerns: Limited government research activities, and associated U.S. Coast Guard helicopter landings on the island, are the only known human disturbances affecting pelicans. Illegal trespass and boat-based disturbances may occur at times.

MARHOFFER CREEK

Roost No: DN 16.0 41.7656, -124.232 Map No. 189 USFWS Colony No: None Owner: DN Manager: DN

Habitat: Creek Mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Marhoffer Creek										
	Spring	Spring Summer Fall Winter									
Time	Total	N	Total	N	Total	N	Total	N			
Period											
1986-	ND	0	ND	0	ND	0	ND	0			
1996											
1997-	ND	0	37	1	151	8	ND	0			
2007			(6/6/04)		(11/15/97)						
	High Count:	151			Total Counts i	n Datal	base: 9				

Access and Site Viewing: View from pull-outs on North Pebble Beach Drive.

Management Concerns: Chronic disturbance due to general public recreational activities and dogs.

LAKE TALAWA MOUTH

Roost No: DN 17.0 41.8278, -124.226 Map No. 190 USFWS Colony No: None Owner: CDFG Manager: CDFG

Habitat: Lagoon Night Roost: Not Suitable



	High Counts of Brown Pelicans at Lake Talawa Mouth										
	Spring	Spring Summer Fall Winter									
Time	Total	otal N Total N Total N Total									
Period											
1986-	ND	0	ND	0	14	2	ND	0			
1996					(10/13/91)						
1997-	151	3	102	17	81	9	ND	0			
2007	(5/28/05)		(8/13/04)		(10/18/04)						
	High Count:	151		•	Total Counts i	n Datal	base: 31				

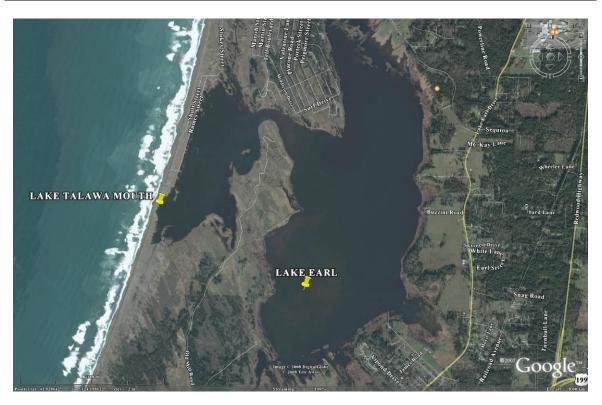
Access and Site Viewing: Park at the end of Ramey Road in the Pacific Shores Subdivision and approach cautiously from beach or dunes at north end of mouth.

Management Concerns: Chronic human disturbance from public recreation, motorized vehicles, dogs, and fishermen; increased lagoon use by kayakers. CDFG management for high water levels reduces available roost habitat within the lagoon and reduces buffer to disturbance at the mouth of the estuary.

LAKE EARL

Roost No: DN 18.0 41.8163, -124.197 Map No. 191 USFWS Colony No: None Owner: CDFG Manager: CDFG

Habitat: Lagoon Night Roost: Not Suitable



	High Counts of Brown Pelicans at Lake Earl											
	Spring	Spring Summer Fall Winter										
Time	Total	N	Total	N	Total	N	Total	N				
Period												
1986-	ND	0	ND	0	ND	0	ND	0				
1996												
1997-	ND	0	327	6	127	3	ND	0				
2007			(7/23/07)		(11/4/03)							
	High Count:	327		Total Counts i	n Datal	base: 9						

Access and Site Viewing: View from various locations around the east side of Lake Earl, including the end of Lakeview Drive, and from trails in Tolowa Dunes State Park on the west side.

Management Concerns: Effects of water level management on brown pelicans has not been considered by CDFG in the Lake Earl Wildlife Area Management Plan.

SMITH RIVER MOUTH

Roost No: DN 18.0 41.9433, -124.204 Map No. 192 USFWS Colony No: None Owner: PRIV Manager: PRIV

Habitat: River Mouth Night Roost: Not Suitable



	High Counts of Brown Pelicans at Smith River Mouth							
	Spring Summer				Fall	Winter		
Time	Total	N	Total	N	Total	N	Total	N
Period								
1986-	ND	0	462	4	29	8	ND	0
1996			(7/6/87)		(9/10/86)			
1997-	ND	0	44	15	590	13	ND	0
2007			(8/27/99)		(10/14/07)			
	High Count: 590				Total Counts in Database: 40			

Access and Site Viewing: View from parking lot at end of Mouth of Smith River Road and/or from parking lot at Ship-a Shore Motel.

Management Concerns: Human disturbance from motorized vehicles. Disturbance cannot be managed due to private ownership.

PRINCE ISLAND

Roost No: DN 20.0 41.9512, -124.216 Map No. 193 USFWS Colony No: 325-003 Owner: SRR Manager: SRR

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Prince Island							
	Spring		Summer		Fall		Winter	
Time	Total	N	Total	N	Total	N	Total	N
Period								
1986-	ND	0	33	2	0	1	ND	0
1996			(8/8/91)		(9/9/91)			
1997-	ND	0	8	2	29	2	ND	0
2007			(7/27/98)		(9/8/00)			
	High Count: 33				Total Counts in Database: 7			

Access and Site Viewing: Best view is from aerial survey, but limited view may be gained from the beach north of the island.

HUNTER ROCKS

Roost No: DN 21.0 41.9563, -124.212 Map No. 196 USFWS Colony No: 325-002 Owner: SRR Manager: SRR

Habitat: Offshore Rock Night Roost: Confirmed



	High Counts of Brown Pelicans at Hunter Rocks								
	Spring		Summer		Fall		Winter		
Time	Total	N	Total	N	Total	N	Total	N	
Period									
1986-	ND	0	150	1	143	10	ND	0	
1996			(7/18/87)		(9/9/91)				
1997-	ND	0	210	10	397	9	ND	0	
2007			(7/27/91)		(10/5/98)				
	High Count: 397					Total Counts in Database: 30			

Access and Site Viewing: Best shore-based view is from Smith River Rancheria, How en Quet cemetery area. Tribal permission required.

CONE ROCKS

Roost No: DN 22.0 41.9731, -124.219 Map No. 196 USFWS Colony No: 325-001 Owner: BLM Manager: BLM

Habitat: Offshore Rock Night Roost: Unknown



	High Counts of Brown Pelicans at Cone Rocks							
	Spring		Summer		Fall		Winter	
Time	Total	N	Total	N	Total	N	Total	N
Period								
1986-	ND	0	72	2	68	6	ND	0
1996			(7/5/91)		(9/16/88)			
1997-	ND	0	8	8	94	8	ND	0
2007			(8/27/99)		(11/18/97)			
	High Count: 94				Total Counts in Database: 24			

Access and Site Viewing: View from end of parking lot at Clifford Kamph County Beach off Highway 101.

DATA DICTIONARY

For Brown Pelican Roost Site Atlas Database 2008 D. Jaques, H. Carter, and P. Capitolo

<u>Fieldname:</u> <u>Field Meaning</u>

STATE: State where roost site occurs

CO: County, 2 letter code

CONO: County number, numbered from south to north along the California

coast

NEWNO: New roost site number, revised from earlier databases, resets at

south end of each county.

LOC: Location. Roost site name.

HAB: Habitat. Primary habitat category, one that best describes roost

site.

DATE: Date of observation.TIME: Time of observation.METHOD: Method of observation

TOTRST: Total number of pelicans at roost site

LATITUDE: Latitude in decimal degrees
LONGITUDE: Longitude in decimal degrees

OWNER: Owner of roost site

MANAGER: Manager of location where roost site exists

FWSCOLN: USFWS Seabird Colony Catalog number from Carter et al. 1992. COLONYNAME: USFWS Seabird Colony Catalog name from Carter et al. 1992.

OBSERVERS: Observers involved in collecting field data

DOTTERS: Person(s) that dotted and counted pelicans from aerial photographs

YEAR: Year in which data were collected MO: Month in which data were collected

DAY: Day that data were collected

Database Codes:

Field	Code	Translation
STATE	CA	California
COUNTY	SB	Santa Barbara
	SL	San Luis Obispo
	MO	Monterey
	SC	Santa Cruz
	SM	San Mateo
	SF	San Francisco
	MA	Marin

Field	Code	Translation
COUNTY (ctd.)	SO	Sonoma
, ,	ME	Mendocino
	HU	Humboldt
	DN	Del Norte
HABITAT	BCH	Beach
	BRW	Breakwater
	CMO	Creek mouth
	CRS	Cliff or rocky shoreline
	EST	Estuary
	HRB	Harbor
	JTY	Jetty
	LAG	Lagoon
	MIX	Mixture of habitat types
	MMS	Man-made structure, not jetty or breakwater
	ORM	Offshore rock and mainland
	OSR	Offshore Rock
	RMO	River mouth
OWNER	BLM	Bureau of Land Management
	CA	State of California
	CALTRANS	Cal Trans
	CCHD	Crescent City Harbor District
	CDFG	California Dept. of Fish and Game
	CDPR	California Department of Parks and Recreation
	CITY	City in which roost site is located
	DN	Del Norte County
	MA	Marin County
	NOAA	National Oceanographic and Atmospheric
		Administration
	NPS	National Park Service
	PGE	Pacific Gas and Electric
	PRIV	Private
	PSLHD	Port San Luis Harbor District
	SB	Santa Barbara Count
	SL	San Luis Obispo County
	SMHD	San Mateo Harbor District
	SO	Sonoma County
	SRR	Smith River Rancheria
	UK	Unknown
	USACE	United States Army Corps of Engineers
	USAF	United States Air Force
	USCG	United States Coast Guard
	USFS	United States Forest Service

	USFWS	United States Fish and Widlife Service
MANAGER (other		
than listed in OWNER)	CRNWR	Castle Rock National Wildlife Refuge
	CSLC	California State Lands Commission
	GGNRA	Golden Gate National Recreation Area
	HEARST	Hearst Corportaion
	MLHD	Moss Landing Harbor District
	NERR	National Estuarine Research Reserve