

**Appendix 2.** Summary of currently active (2006) and otherwise-known BRPE breeding colonies for the ***Southern Baja-Pacific (SBP)*** ***Subpopulation<sup>a</sup>***.

Site Name	Approx LAT	Approx LONGI	Nests (Air)	STG <sup>b</sup>	Da/Mo	r/s <sup>c</sup>	#Nests	Da/Mo/Yr	#Nests (fin.est.)	Source Final Est <sup>d</sup>	Dis <sup>e</sup>	# not @ Nests <sup>f</sup>	Est Non-YY # <sup>g</sup>	% BH <sup>h</sup>	REM <sup>9</sup>
Islas San Benito, BC	28 18.4	115 34.8	?	UK	*	5	400	2002	400	9	NC	*	*	*	4
Isla Cedros, BC	28 10.7	115 12.7	?	UK	*	5	300	2002	300	9	NC	*	*		4
Isla Natividad, BCS	27 53.4	115 12.7	?	UK	*	5	±100	2002	100	9	NC	*	*		4
Isla San Roque, BCS	27 08.8	114 22.6	0	NO	26/03	*	*	*	0	1	*	0	0	*	5
Isla la Asunción, BCS	27 06.2	114 17.5	0	NO	26/03	*	*	*	0	1	*	0	0	*	
Isla Garzas, BCS	26 55.7	113 09.8	0	NO	26/03	*	*	*	0	1	*	0	0	*	6
Isla Pelícanos, BCS	26 54.3	113 09.3	375	EE	26/03	6	*	*	350	1,2	PE	800	1,500	5	6
Isla Santa Margarita Norte (uplands), BCS	24 30.9	111 59.5	1,800+	EE	25/03	7	2,000	21/07/02	1,950*	1,7	PE	2,500	7,500	20	7
Isla Santa Margarita Sur (uplands), BCS	24 23.1	111 45.6	0	NO	25/03	*	*	*	0	1	*	0	0	*	8
Isla Santa Margarita Sur (mangroves-Las Tijeras), BCS	24 21.7	111 42.1	0	NO	25/03	*	*	*	0	1,2	CD	10	*	*	9
Isla Creciente Norte, BCS	24 22.6	111 36.9	0	NO	26/03	*	*	*	0	1,7	*	0	10	*	10
SUB-TOTAL--SBP									3,100						

NOTES & REMARKS (footnoted from above):

<sup>a, b, d, e, f, g</sup>These footnotes are identical to those from Appendix 1.

<sup>c</sup>r/s = References and Sources (as numbered):

5—B. Keitt, S. Wolfe, and B. Tershey, ISCB, *pers. comm.*

6—Gustavo Danemann, PRONATURA; Martín Garcia Aguilar, Guerra Negro Salt Company; Benito Bermudez, CONANP, *pers. comm.*

7—EP and Edgar Amador, CIBNOR, *pers. comm.*; Zárate-Ovando *et al.* (2006).

<sup>9</sup>ADDITIONAL REMARKS FROM THIS COLUMN, "REM":

4—Not censused by us in 2006 due to fog; we used the values reported by Keitt *et al.* (ref. 5 above) for our recent estimate. In 1977, this colony contained 150 nests (DWA and CJH, *field notes*). Nelson (1922:88) reported Isla Natividad as an important BRPE colony site as early as 1905.

5—In 1977, Isla San Roque had 250 BRPE nests (DWA and CJH, *field notes*) and in 2007, there were about 200 active nests (EP and H. Carter, *pers. comm.*); but we saw no activity in 2006.

6—G. Danemann (reference 6, column 7) reported a complete abandonment of this BRPE colony (along with Double-crested Cormorants, *P. auritus*) about 3 weeks after our aerial survey; this abandonment was believed most importantly due to coyote predation but also some human-related disturbances. On our over-flight, we observed an unidentified person in one of the previously-known, nearby pelican and cormorant nesting areas on nearby Isla Garzas. Our photographs indicated about 350 BRPE nests (birds on nests and incubating, thus difficult to see) along with about 50 DCCO nests, but photos were not clear. Our final estimate is a compromise between our visual estimate and our photograph estimate. Danemann and Guzman-Poo (1992) believed the BRPE is a recently-established nester at this location and they reported wide fluctuations in the numbers of nesting BRPE at this colony (on Isla Garzas when they studied on the island), from 50 nests in 1988 to 1100 nests in 1989. Knoder *et al.* (1980) first reported 65 nests in San Ignacio Lagoon in 1971. The colony (with two known locations), although located within the *el Vizcaino Reserva de la Biosfera*, is still subject to disturbance.

7—Given the number of birds in the immediate nesting area and below on the water, the total nesting population in 2006 was likely higher, perhaps by at least 500 to 1,000 nests. Zárate-Ovando *et al.* (2006) reported this site as a 3,000-nest BRPE colony, and they also report about 9,700 BRPE of all age-classes in the local area in summer (prior to fledging from the colony). Percent BH (brown-head) BRPE, column 15, was estimated from but one photo of IN/OUT feeding flocks moving toward the large loafing-group just below the nesting canyons (see column 13). Our final estimate of 2006 numbers was based on a correction factor of 1.081. DWA and CJH (*field notes*) estimated 3500 potential nests at this location in 1977, a mild ENSO year (no final estimates were made, however). DWA and J. O. Keith (deceased) visited this colony in 1975 and banded 200 pre-fledge young. They estimated 5085 active nests in a deep canyon system very difficult to census from either boat or airplane. Thus, this colony will probably always be underestimated unless ground-truth efforts are conducted.

8—Old guano deposits in this unoccupied BRPE nesting area (first seen with BRPE by DWA and CJH in 1992) was photographed, but was not seen to be occupied in 2006. Gomez-C. *et al.* (1982) first identified this general location as a known (but perhaps intermittent) BRPE nesting location on Isla Santa Margarita in 1980. And in fact, Nelson (1922:90) reported this area contained "considerable numbers" nesting on the south end of Isla Santa Margarita in 1905.

9—This mangrove colony of mostly Magnificent Frigatebirds (*Fregata magnificens*) and Double-crested Cormorants, was not directly over-flown due to extreme hazard of bird-strikes (numerous, dense MAFR soaring over the colony area). Thus, we only flew by the edges of the colony on one pass and photographed the nesting colony from a distance. No more than a few immature pelicans near a fishing village nearby were the only identifiable BRPE in this nesting area of Isla Santa Margarita in 2006.

10—On 27 March 1977, this small colony contained 25 active BRPE nests in mangroves (DWA and CJH, *field notes*), and it represents the extreme known southern limits of the SBP sub-population.