

Population Monitoring of Elephants

Seals at Año Nuevo, 2015

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Population : Estimates of breeding elephant seal female and pup populations, Año Nuevo rookery, 2015. Number of pups born estimated as $0.975 \times$ female number. Fit to the census model on mainland was poor, with oddly late peak date at main point, but oddly early at NP. No censuses at all between peak and final date on 1 March.

Area	Breeding females	Pups born	Pups weaned
Main point	1145	1117	900
North point	427	416	327
Island	398	388	363
Total	1970	1921	1590

Weighing : Mean body mass in kg for elephant seals, Año Nuevo rookery, 2015. Sample size in parentheses. No correction for time since weaning date.

Age	F	M
W	102.9 (127)	104.1 (168)

Female age distribution : Age and origin of breeding females whose tags were read, Año Nuevo rookery, 2015. The row *known* for Año Nuevo is the sum of the previous rows of known age. The following row is the number of observed females that had been tagged at Año Nuevo as adults, so age is not known. Age of most foreign-tagged females is not available to us.

Origin	Age	Main Point	North Point	Island	Total	
Año Nuevo	3	5	3	0	8	
	4	18	6	0	24	
	5	8	6	0	14	
	6	13	7	0	20	
	7	3	2	0	5	
	8	11	4	0	15	
	9	5	1	0	6	
	10	4	3	0	7	
	11	3	0	0	3	
	12	3	2	0	5	
	13	3	0	0	3	
	14	2	0	0	2	
	15	2	3	0	5	
	16	0	1	0	1	
	17	1	0	0	1	
	19	0	1	0	1	
	20	1	0	0	1	
	Año Nuevo	known	82	39	0	121
		unknown	29	14	0	43
San Miguel		8	2	0	10	
Point Reyes		4	0	2	6	
Gorda		1	3	0	4	
Piedras Blancas		7	7	0	14	
San Nicolas		1	0	0	1	
MM Center		0	0	0	0	

Newly tagged animals : Animals tagged for the first time in 2015 at the Año Nuevo colony. Number of animals tagged by age category and sex; YOY=pup/weaner (young-of-the-year) and Y=yearling. A total of 792 green tags plus 84 PIT tags were deployed on these animals. An additional 0 tags were voided, and 10 were observed on YOY but do not appear in the database.

age cat	female	male	sex unknown
YOY	177	212	91
Y	0	0	0
juv	2	0	0
SA	0	0	0
ad	0	0	0
Total	179	212	91

Newly tagged animals : Animals tagged for the first time in 2015 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, adults/juveniles. The category 2+ includes a small number with 3 tags (27 were given 3 or more green tags; 0 were given 3 or more PIT tags).

	Green tags
PIT tags	2+
0	2

Newly tagged animals : Animals tagged for the first time in 2015 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, pups/weaners (YOY). The category 2+ includes a small number with 3 tags (27 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags	
	1	2+
0	198	200
1	4	76
2+	0	2

Re-tagged animals : Animals tagged in prior years (at any colony) then given a new tag in 2015 at the Año Nuevo colony. Number of animals tagged by age category and sex; YOY=pup/weaner (young-of-the-year) and Y=yearling. A total of 13 green tags plus 2 PIT tags were deployed on these animals.

age cat	female	male	sex unknown
YOY	0	0	0
Y	0	0	0
juv	1	0	0
SA	0	1	0
ad	9	0	0
W	0	2	0
Total	10	3	0

Re-tagged animals : Animals tagged in prior years (at any colony) then given a new tag in 2015 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, adults/juveniles. The category 2+ includes a small number with 3 tags (4 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags	
	1	2+
0	1	9
1	0	1
2+	0	2

Sighting Effort : Number of individual sightings and individual animals identified each year since 2003

Year	Breeding		Non-breeding	
	Sightings	Animals	Sightings	Animals
2003	3094	186	22	1
2004	3779	201	144	32
2005	4926	261	1782	227
2006	4229	281	1036	262
2007	2693	183	572	124
2008	1924	205	1273	283
2009	3072	215	835	207
2010	4931	241	2065	348
2011	7239	264	2190	348
2012	7255	301	2448	375
2013	9230	337	3616	396
2014	8256	355	3210	443
2015	6155	328	1207	260