

Population Monitoring of Elephants

Seals at Año Nuevo, 2008

R. Condit

Population : Estimates of breeding elephant seal female and pup populations, Año Nuevo rookery, 2008. Number of pups born estimated as $0.975 \times$ female number.

Area	Breeding females	Pups born	Pups weaned
Main point	1610	1570	1522
North point	305	297	226
Island	504	491	341
Total	2418	2358	2089

Weighing : Mean body mass in kg for elephant seals, Año Nuevo rookery, 2008. Sample size in parentheses. No correction for time since weaning date.

Age	F	M
2	194.7 (3)	177.5 (2)
2yr	221.3 (3)	257.0 (2)
ad	362.1 (22)	NA (0)
Ad	486.0 (1)	NA (0)
juv	179.3 (10)	202.4 (5)
p	NA (0)	63.5 (2)
P	NA (0)	44.6 (5)
W	107.5 (57)	113.0 (60)
Y	142.6 (8)	147.0 (3)

Female age distribution : Age and origin of breeding females whose tags were read, Año Nuevo rookery, 2008. 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	1	0	0	1
	4	10	3	0	13
	5	17	4	1	22
	6	13	3	0	16
	7	3	1	0	4
	8	5	5	0	10
	9	5	2	0	7
	10	7	1	0	8
	11	2	0	0	2
	12	2	4	0	6
	13	2	0	0	2
	14	4	0	1	5
	19	1	0	0	1
	Año Nuevo	known	72	23	2
unknown		29	9	1	39
San Miguel		5	1	2	8
Point Reyes		2	1	2	5
Gorda		2	2	0	4
Piedras Blancas		14	6	0	20
San Nicolas		2	2	0	4
MM Center		0	0	0	0

Newly tagged animals : Animals tagged for the first time in 2008 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 560 green tags plus 0 PIT tags were deployed on these animals. An additional 7 tags were voided, and 5 were observed on YOY but do not appear in the database.

age cat	female	male	sex unknown
YOY	192	155	44
Y	12	3	1
juv	3	3	0
SA	0	1	0
ad	1	10	0
Total	208	172	45

Newly tagged animals : Animals tagged for the first time in 2008 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, adults/juveniles. The category 2+ includes a small number with 3 tags (13 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags		
	0	1	2+
0	1	31	2

Newly tagged animals : Animals tagged for the first time in 2008 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 (13 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags		
	0	1	2+
0	1	248	132
2+	0	1	9

Re-tagged animals : Animals tagged in prior years (at any colony) then given a new tag in 2008 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 38 green tags plus 0 PIT tags were deployed on these animals.

age cat	female	male	sex unknown
YOY	0	0	0
Y	0	0	0
juv	7	4	0
SA	0	0	0
ad	26	1	0
Total	33	5	0

Re-tagged animals : Animals tagged in prior years (at any colony) then given a new tag in 2008 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, adults/juveniles. The category 2+ includes a small number with 3 tags (15 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags	
	1	2+
0	6	30
2+	0	2

Sighting Effort : Number of individual sightings and individual animals identified each year since 1999

Year	Breeding		Non-breeding	
	Sightings	Animals	Sightings	Animals
1999	751	107	11	0
2000	1667	149	48	0
2001	2764	204	53	13
2002	2509	194	100	12
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