

# Population Monitoring of Elephants

## Seals at Año Nuevo, 2017

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Population : Estimates of breeding elephant seal female and pup populations, Año Nuevo rookery, 2017. Number of pups born estimated as  $0.975 \times$  female number.

Area	Breeding females	Pups born	Pups weaned
Main point	1411	1376	1311
North point	227	221	199
Island	443	432	273
Total	2082	2030	1783

Weighing : Mean body mass in kg for elephant seals, Año Nuevo rookery, 2017. Sample size in parentheses. No correction for time since weaning date.

Age	F	M
ad	360.3 (3)	NA (0)
P	45.2 (5)	47.0 (7)
W	115.2 (129)	120.9 (170)

Female age distribution : Age and origin of breeding females whose tags were read, Año Nuevo rookery, 2017. 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	1	0	6	
	4	28	4	0	32	
	5	37	3	0	40	
	6	8	4	0	12	
	7	8	3	0	11	
	8	6	4	0	10	
	9	4	0	0	4	
	10	7	2	0	9	
	11	0	2	0	2	
	12	3	1	0	4	
	13	0	2	0	2	
	14	4	1	0	5	
	15	3	0	0	3	
	16	1	0	0	1	
	17	2	0	0	2	
	18	1	0	0	1	
	19	1	0	0	1	
	Año Nuevo	known	118	27	0	145
		unknown	28	9	0	37
San Miguel		5	3	1	9	
Point Reyes		4	1	0	5	
Gorda		2	2	0	4	
Piedras Blancas		7	2	1	10	
San Nicolas		0	1	0	1	
MM Center		1	0	0	1	

Newly tagged animals : Animals tagged for the first time in 2017 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 866 green tags plus 0 PIT tags were deployed on these animals. An additional 34 tags were voided, and 5 were observed on YOY but do not appear in the database.

age cat	female	male	sex unknown
YOY	206	249	22
Y	0	0	0
juv	3	0	0
SA	0	62	1
ad	3	12	0
Total	212	323	23

Newly tagged animals : Animals tagged for the first time in 2017 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, adults/juveniles. The category 2+ includes a small number with 3 tags (5 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags	
	1	2+
0	74	7

Newly tagged animals : Animals tagged for the first time in 2017 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 (5 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags	
	1	2+
0	182	295

Re-tagged animals : Animals tagged in prior years (at any colony) then given a new tag in 2017 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 16 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	0	0	0
SA	0	5	0
ad	6	2	0
W	0	0	0
Total	6	7	0

Re-tagged animals : Animals tagged in prior years (at any colony) then given a new tag in 2017 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, adults/juveniles. The category 2+ includes a small number with 3 tags (9 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags	
	1	2+
0	2	13

Sighting Effort : Number of individual sightings and individual animals identified each year since 2009

Year	Breeding		Non-breeding	
	Sightings	Animals	Sightings	Animals
2009	3099	248	836	247
2010	4966	291	2065	402
2011	7245	301	2190	408
2012	7313	343	2449	426
2013	9563	376	3617	434
2014	8291	402	3302	498
2015	6444	364	4010	609
2016	8220	428	5286	613
2017	6364	410		0