Population Monitoring of Elephants Seals at Año Nuevo, 2019

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Population : Estimates of breeding elephant seal female and pup populations, Año Nuevo rookery, 2019. Number of pups born estimated as 0.975 x female number.

Area	Breeding females	Pups born	Pups weaned
Main point	1332	1298	1138
North point	324	315	269
Island	471	459	320
Total	2126	2073	1727

Weighing : Mean body mass in kg for elephant seals, Año Nuevo rookery, 2019. Sample size in parentheses. No correction for time since weaning date.

Age	F	M
ad	331.5 (2)	NA (0)
P	43.3 (3)	49.0 (7)
W	113.5 (128)	118.3 (152)
Y	166.2 (10)	168.3 (3)

Female age distribution : Age and origin of breeding females whose tags were read, Año Nuevo rookery, 2019. 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	4	1	0	5
	4	20	9	0	29
	5	21	6	0	27
	6	18	12	0	30
	7	29	6	0	35
	8	6	5	0	11
	9	6	1	0	7
	10	5	2	0	7
	11	2	0	0	2
	12	3	1	0	4
	13	0	1	0	1
	14	1	2	0	3
	15	1	0	0	1
	16	2	0	0	2
	17	1	0	0	1
	18	1	0	0	1
	20	0	1	0	1
Año Nuevo	known	120	47	0	167
	unknown	18	5	0	23
San Miguel		5	1	0	6
Point Reyes		5	2	1	8
Gorda		1	2	0	3
Piedras Blancas		16	2	0	18
San Nicolas		0	1	0	1
MM Center		1	0	0	1

Newly tagged animals : Animals tagged for the first time in 2019 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 785 green tags plus 0 PIT tags were deployed on these animals. An additional 3 tags were voided, and 1 were observed on YOY but do not appear in the database.

age cat	female	male	sex unknown
YOY	177	207	45
Y	10	3	0
juv	0	0	0
SA	0	3	0
ad	18	0	0
Total	205	213	45

Newly tagged animals : Animals tagged for the first time in 2019 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, adults/juveniles. The category 2+ includes a small number with 3 tags (7 were given 3 or more green tags; 0 were given 3 or more PIT tags).

	Green tags	
PIT tags	1	2+
0	3	31

Newly tagged animals : Animals tagged for the first time in 2019 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 (7 were given 3 or more green tags; 0 were given 3 or more PIT tags).

	Green tags	
PIT tags	1	2+
0	145	284

Re-tagged animals : Animals tagged in prior years (at any colony) then given a new tag in 2019 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 9 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	2	0
SA	0	0	0
ad	7	0	0
Total	7	2	0

Re-tagged animals : Animals tagged in prior years (at any colony) then given a new tag in 2019 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, adults/juveniles. The category 2+ includes a small number with 3 tags (1 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags 2+
0	9

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

Year	Breeding		Non-breeding	
	Sightings	Animals	Sightings	Animals
2003	3161	215	22	1
2004	4068	249	144	40
2005	4928	319	1782	293
2006	4271	333	1036	315
2007	2698	221	572	148
2008	1924	250	1273	348
2009	3099	252	836	251
2010	4966	297	2065	407
2011	7220	304	2190	414
2012	7311	347	2449	430
2013	9565	377	3617	436
2014	8292	406	3306	503
2015	6444	367	4010	609
2016	8220	433	5292	619
2017	11154	459	3137	523
2018	11745	440	3944	536
2019	8399	385	1713	358