

Population Monitoring of Elephants

Seals at Año Nuevo, 2020

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Population : Estimates of breeding elephant seal female and pup populations, Año Nuevo rookery, 2020. Number of pups born estimated as $0.975 \times$ female number.

Area	Breeding females	Pups born	Pups weaned
Main point	1246	1215	1093
North point	286	279	248
Island	555	541	444
Total	2087	2035	1785

Weighing : Mean body mass in kg for elephant seals, Año Nuevo rookery, 2020. Sample size in parentheses. No correction for time since weaning date.

Age	F	M
P	46.7 (3)	46.8 (5)
W	120.2 (165)	123.2 (184)
Y	NA (0)	127.0 (1)

Female age distribution : Age and origin of breeding females whose tags were read, Año Nuevo rookery, 2020. 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	28	9	0	37	
	5	16	6	0	22	
	6	13	11	0	24	
	7	10	10	0	20	
	8	24	4	0	28	
	9	5	4	0	9	
	10	3	3	0	6	
	11	4	2	0	6	
	12	1	0	0	1	
	13	2	0	0	2	
	14	1	0	0	1	
	15	0	1	0	1	
	16	0	1	0	1	
	17	0	1	0	1	
	18	3	0	0	3	
	19	1	0	0	1	
	Año Nuevo	known	112	52	0	164
		unknown	35	10	0	45
San Miguel		5	0	0	5	
Point Reyes		4	1	0	5	
Gorda		1	2	0	3	
Piedras Blancas		9	3	0	12	
San Nicolas		0	0	0	0	
MM Center		0	0	0	0	

Newly tagged animals : Animals tagged for the first time in 2020 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 1037 green tags plus 0 PIT tags were deployed on these animals. An additional 22 tags were voided, and 3 were observed on YOY but do not appear in the database.

age cat	female	male	sex unknown
YOY	277	280	46
Y	1	1	0
juv	4	2	0
SA	0	57	0
ad	0	6	0
Total	282	346	46

Newly tagged animals : Animals tagged for the first time in 2020 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, adults/juveniles. The category 2+ includes a small number with 3 tags (23 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags	
	1	2+
0	70	1

Newly tagged animals : Animals tagged for the first time in 2020 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 (23 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags		
	0	1	2+
0	101	61	441

Re-tagged animals : Animals tagged in prior years (at any colony) then given a new tag in 2020 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 26 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	1	1	0
SA	0	3	0
ad	7	0	0
unknown	0	0	0
W	2	4	0
Total	10	8	0

Re-tagged animals : Animals tagged in prior years (at any colony) then given a new tag in 2020 at the Año Nuevo colony. Number of animals singly- and doubly-tagged, adults/juveniles. The category 2+ includes a small number with 3 tags (14 were given 3 or more green tags; 0 were given 3 or more PIT tags).

PIT tags	Green tags
	2+
0	16
1	4

Sighting Effort : Number of individual sightings and individual animals identified each year since 2014

Year	Breeding		Non-breeding	
	Sightings	Animals	Sightings	Animals
2014	8292	415	3306	512
2015	6444	376	4010	624
2016	8220	446	5292	636
2017	11154	468	3139	543
2018	11775	474	3956	553
2019	8495	454	3386	616
2020	11582	448	1248	183