

Supplementary Material

DOI: 10.2989/00306525.2019.1684396

Ostrich: Journal of African Ornithology 2019, 90(4)

The status and conservation of Cape Gannet *Morus capensis*

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Table S1: Bayesian state-space model estimates of the numbers of Cape Gannet *Morus capensis* (thousands of pairs) that bred at the species' six extant colonies, 1956–2018, based on estimates of the areas occupied by breeding gannets (see Figure S1) obtained from aerial photographs (or in some case from GPS measurements, marked with an asterisk [*]), and the mean densities of nests at each colony. See main text for methods

Year	Mercury Island (Namibia)	Ichaboe Island (Namibia)	Possession Island (Namibia)	Lambert's Bay (South Africa, west coast)	Malgas Island (South Africa, west coast)	Bird Island/Algoa Bay (South Africa, south coast)
1956	8.93	180.77	19.98	5.40	25.93	21.93
1957	8.42	178.04	19.35	5.20	26.33	23.22
1958	7.90	174.92	18.78	5.01	26.72	24.55
1959	7.46	171.75	18.25	4.85	27.06	26.05
1960	7.04	169.05	17.73	4.66	27.38	26.76
1961	6.62	166.04	17.13	4.49	27.79	27.36
1962	6.23	163.61	16.69	4.33	28.13	28.09
1963	5.87	160.82	16.25	4.18	28.54	28.82
1964	5.52	159.16	15.73	4.03	28.96	29.49
1965	5.20	156.65	15.33	3.88	29.26	30.26
1966	4.91	153.95	14.84	3.75	29.68	30.90
1967	4.63	151.97	14.43	3.60	30.09	31.61
1968	4.01	140.75	12.89	3.49	29.37	32.49
1969	3.47	130.73	11.56	3.37	28.69	33.32
1970	3.56	121.57	10.36	3.57	28.68	33.45
1971	3.67	112.67	9.30	3.79	28.77	33.68
1972	3.76	104.23	8.30	4.01	28.83	35.63
1973	3.87	96.71	7.46	4.24	28.83	37.69
1974	3.97	89.93	6.67	4.47	28.82	39.83
1975	4.08	83.31	5.99	4.73	28.84	41.32
1976	4.20	77.41	5.38	5.00	28.88	42.92
1977	4.32	71.99	4.81	5.27	29.02	44.64

1978	4.45	67.01	4.33	5.58	29.06	46.42
1979	3.75	60.73	3.93	6.07	29.49	45.26
1980	3.19	55.23	3.57	6.64	29.87	48.84
1981	2.70	51.48	3.57	6.90	30.18	51.15
1982	2.89	50.05	3.21	6.86	30.43	52.47
1983	2.72	48.64	3.16	7.05	28.51	51.98
1984	2.90	49.59	2.85	8.47	29.50	51.39
1985	2.57	45.64	3.06	9.06	31.34	52.43
1986	2.55	47.06	2.94	10.30	36.49	55.04
1987	2.58	48.55	2.83	11.41	39.71	56.86
1988	2.86	50.48	2.86	10.82	41.71	58.86
1989	2.83	49.03	2.77	10.41	43.64	58.36
1990	2.74	41.84	2.53	10.04	38.02	59.89
1991	2.65	35.65	2.33	10.47	41.13	62.26
1992	2.57	30.41	2.14	10.18	41.37	64.21
1993	2.36	30.38	1.44	9.95	40.05	68.57
1994	1.94	29.94	1.03	9.66	45.89	70.20
1995	1.88	29.44	0.81	9.65	49.57	70.60
1996	1.73	27.98	0.68	10.05	52.48	69.96
1997	1.54	23.66	0.54	10.20	51.51	69.41
1998	1.47	20.29	0.43	9.92	50.66	68.38
1999	1.51	17.84	0.42	10.01	49.25	74.19
2000	1.56	15.75	0.41	10.09	47.79	80.54
2001	1.61	13.87	0.41	9.32	45.54	87.43
2002	1.59	12.73	0.41	8.76	40.37	87.08
2003	1.58	11.75	0.42	8.10	35.83	89.55
2004	1.65	10.87	0.41	6.17	35.33	94.43
2005	1.53	10.11	0.37	5.86	34.80	97.64
2006	1.52	10.81	0.34	5.53	32.51	92.12
2007	1.61	10.63	0.32	6.87	32.84	90.73
2008	1.71	10.47	0.29	7.18	34.28	96.69*
2009	1.81	10.34	0.27	7.03*	33.02	94.81*
2010	1.92	10.24	0.25	7.68	31.96	94.24
2011	2.04	10.10	0.23	7.66	30.88	93.61
2012	2.04	9.65	0.21	7.21	30.15	95.31*
2013	2.05	9.24	0.19	5.83*	28.57	90.79*
2014	2.07	8.83	0.18	6.72	27.50	88.88*
2015	2.08	7.66	0.16	7.34	28.08	91.46*
2016	2.09	6.65	0.15	7.64*	27.55	95.51*
2017	2.10	5.80	0.14	7.38	24.55*	96.93
2018	2.12	5.04	0.13	7.09	22.43	97.52*

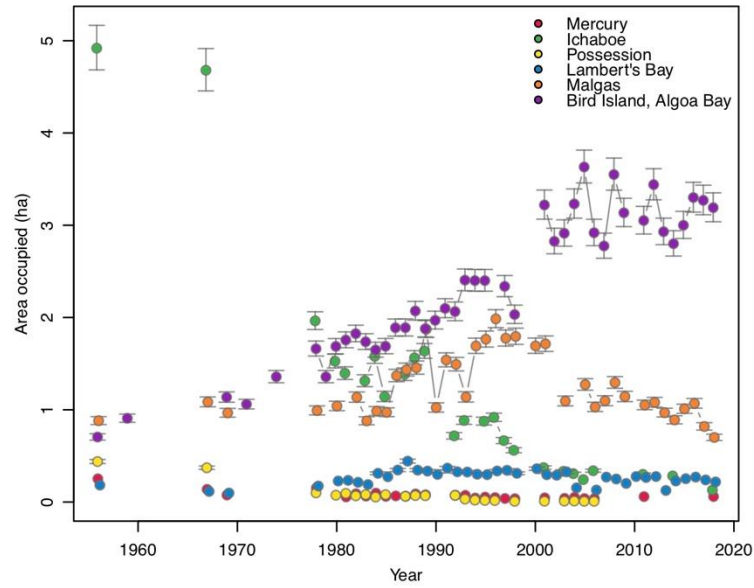


Figure S1: Time-series of estimates of the area occupied by breeding Cape Gannets *Morus capensis* at the species' six extant colonies, 1956–2018; the first three locations are islands off Namibia, and the second three locations are islands along the coast of South Africa

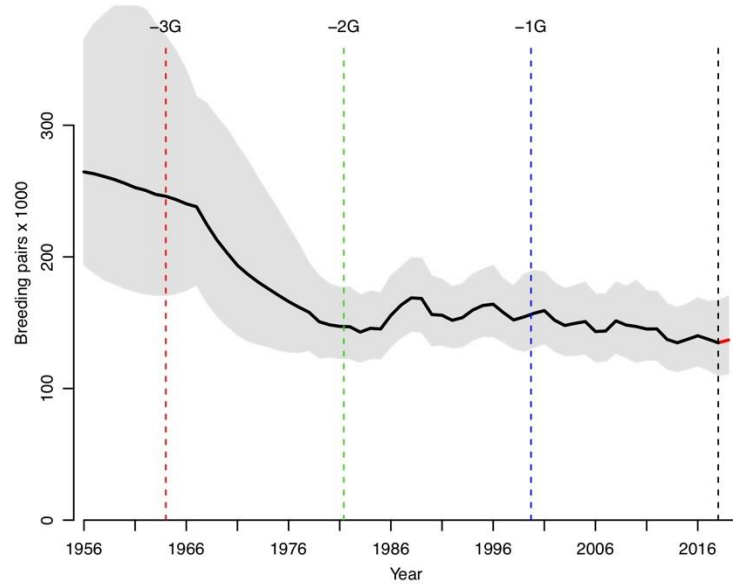


Figure S2: Estimated trajectory (black line) of the total number of breeding pairs of Cape Gannets *Morus capensis* at the species' six extant colonies combined, 1956–2018, from the Bayesian state-space model, with 95% Bayesian credible intervals (grey shading). Vertical dashed lines show the timespan from the final observation (2018/19) of one generation length (–1G, 18.3 years = blue line) or two generation lengths (–2G, 36.6 years = green line; –3G, 54.9 years = red line)

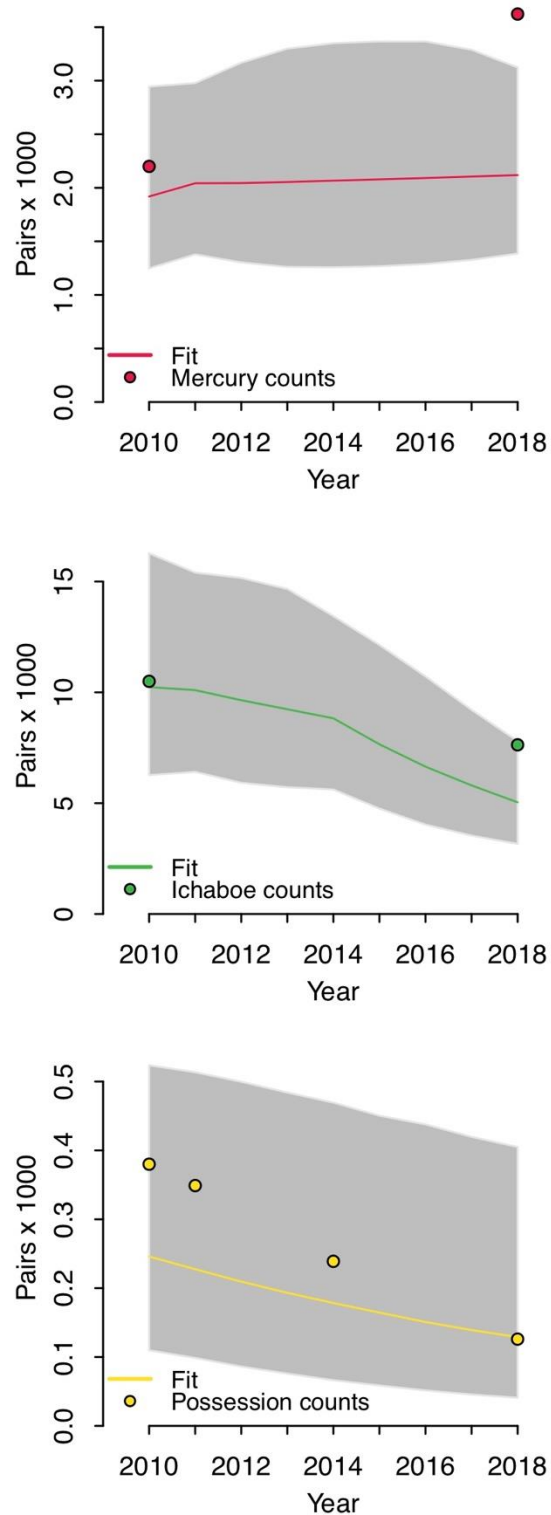


Figure S3: Bayesian state-space model fits (coloured lines) and 95% credible intervals (grey polygons) for the estimated number of breeding pairs of Cape Gannet *Morus capensis* at its three Namibian colonies, 2010/11–2018/19, compared against direct counts of the numbers of Cape Gannet nests at these colonies made from aerial photographs (coloured points)