

## Cross-seasonal foraging site fidelity of subantarctic fur seals: implications for marine conservation areas

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*Marine Ecology Progress Series 554: 225–239 (2016)*

**Table S1.** Summary of tracks obtained of lactating subantarctic fur seals from 2009 winter (2009W), 2010 winter (2010W), 2011 summer (2011S) and winter (2011W), 2012 summer (2012S) and winter (2012W) and 2013 winter (2013W) at Van den Boogaard beach, Marion Island.

Seal ID	Device	Deployment date (yyyy/mm/dd)	Track duration (d)	Season	No. of foraging trips	No. of complete tracks	No. of incomplete tracks
1	Kiwisat 101 PTT	2009/04/24	134	2009W	3	2	1
2	Kiwisat 101 PTT	2009/04/24	89	2009W	2	1	1
3	Kiwisat 101 PTT	2009/04/24	19	2009W	1	0	1
4	Kiwisat 101 PTT	2009/04/28	96	2009W	2	1	1
5	Kiwisat 101 PTT	2009/04/28	146	2009W	2	2	0
6	Kiwisat 101 PTT	2010/03/07	149	2010W	4	3	1
7	Kiwisat 101 PTT	2010/03/21	142	2010W	4	4	0
8	MK10 Splash Tag	2010/06/02	130	2010W	4	3	1
9	Kiwisat 101 PTT	2010/04/29	85	2010W	2	2	0
10	Kiwisat 101 PTT	2010/05/02	78	2010W	3	3	0
11	Kiwisat 101 PTT	2010/05/05	100	2010W	2	1	1
13	Kiwisat 101 PTT	2011/01/03	76	2011S	6	6	0
14	Kiwisat 101 PTT	2011/01/02	65	2011S	6	6	0
15	Kiwisat 101 PTT	2011/01/02	70	2011S	5	5	0
16	Kiwisat 101 PTT	2011/01/03	62	2011S	4	4	0
17	MK10 Splash Tag	2011/05/15	24	2011W	1	1	0
18	Kiwisat 101 PTT	2011/04/29	119	2011W	4	4	0
19	Kiwisat 101 PTT	2011/04/29	131	2011W	3	3	0
20	Kiwisat 101 PTT	2011/12/23	31	2012S	3	2	1
21	Kiwisat 101 PTT	2011/12/27	88	2012S	7	7	0
22	Kiwisat 101 PTT	2011/12/31	65	2012S	5	4	1
23	Kiwisat 101 PTT	2011/12/23	74	2012S	8	8	0
24	MK10 Splash Tag	2012/05/05	88	2012W	3	3	0
25	Kiwisat 101 PTT	2012/05/05	111	2012W	2	2	0
26	Kiwisat 101 PTT	2012/05/23	75	2012W	1	1	0
27	MK10 Splash Tag	2012/12/22	81	2013S	7	7	0
28	MK10 Splash Tag	2012/12/22	39	2013S	6	5	1
29	Kiwisat 101 PTT	2012/12/24	72	2013S	5	5	0
31	Kiwisat 101 PTT	2013/05/15	114	2013W	2	1	1
32	Kiwisat 101 PTT	2013/05/21	49	2013W	2	1	1

**Table S2.** Foraging trip summaries for each individual complete foraging trip of lactating subantarctic fur seals from Marion Island (MI).

Season	Seal ID	Foraging trip	Foraging trip duration (d)	Maximum distance reached from MI (km)	Total foraging trip distance (km)	Trip Curvilinear Index	Mean foraging trip direction (°)	Vector length ( <i>Rho</i> )
2009W	1	1	20	387.740	1438.920	0.540	108.200	0.900
2009W	1	2	28	407.650	1635.010	0.500	48.010	0.980
2009W	2	1	36	487.720	1946.450	0.500	90.080	0.950
2009W	4	1	37	813.590	2839.710	0.570	265.300	0.980
2009W	5	1	25	460.540	1445.900	0.640	245.350	0.950
2009W	5	2	117	1051.850	5349.780	0.390	290.480	0.930
2010W	8	1	27	510.120	1389.440	0.730	77.440	0.960
2010W	8	2	48	575.660	2495.130	0.460	48.100	0.970
2010W	8	3	32	577.420	1777.220	0.650	46.870	0.990
2010W	6	1	22	552.250	1584.110	0.700	108.310	0.960
2010W	6	2	20	267.820	1169.350	0.460	154.760	0.680
2010W	6	3	31	357.400	1759.590	0.410	134.920	0.930
2010W	7	1	28	664.240	1994.300	0.670	94.550	0.990
2010W	7	2	36	812.270	2380.150	0.680	85.960	0.980
2010W	7	3	12	211.460	774.610	0.550	72.440	0.970
2010W	7	4	57	692.550	3387.440	0.410	47.840	0.970
2010W	9	1	36	858.720	2305.360	0.740	69.260	0.990
2010W	9	2	47	678.650	2457.910	0.550	50.020	0.980
2010W	10	1	17	246.590	1001.280	0.490	70.990	0.900
2010W	10	2	23	390.170	1237.490	0.630	74.540	0.970
2010W	10	3	27	405.340	1694.710	0.480	37.180	0.970
2010W	11	1	19	273.530	1024.670	0.530	123.020	0.960
2011S	13	1	5	104.670	269.370	0.780	121.290	0.950
2011S	13	2	9	340.790	778.730	0.880	94.100	0.990
2011S	13	3	7	212.810	466.300	0.910	102.590	0.960
2011S	13	4	8	217.370	1180.790	0.370	107.880	0.990
2011S	13	5	12	335.730	849.830	0.790	98.720	0.980
2011S	13	6	17	674.970	2545.380	0.530	120.550	0.970
2011S	14	1	9	308.400	750.320	0.820	66.600	0.990
2011S	14	2	9	291.460	723.490	0.810	83.600	0.990
2011S	14	3	8	193.450	505.800	0.760	75.690	0.990
2011S	14	4	6	212.870	530.800	0.800	79.660	0.990
2011S	14	5	11	304.360	934.280	0.650	105.310	0.980
2011S	14	6	10	300.260	722.940	0.830	91.010	0.990
2011S	15	1	9	165.720	466.530	0.710	94.451	0.990
2011S	15	2	9	179.560	499.760	0.720	103.661	0.990
2011S	15	3	11	218.360	680.940	0.640	94.171	0.980
2011S	15	4	13	249.950	731.400	0.680	110.280	0.990
2011S	15	5	16	349.100	1069.920	0.650	103.320	0.960
2011S	16	1	8	220.370	516.740	0.850	78.130	0.980
2011S	16	2	13	424.220	1030.740	0.820	83.760	0.990
2011S	16	3	12	389.550	1030.480	0.760	78.440	0.930

Season	Seal ID	Foraging trip	Foraging trip duration (d)	Maximum distance reached from MI (km)	Total foraging trip distance (km)	Trip Curvilinear Index	Mean foraging trip direction (°)	Vector length ( <i>Rho</i> )
2011S	16	4	18	541.770	2262.190	0.480	84.940	0.990
2011W	17	1	14	318.090	2262.190	0.280	53.450	0.990
2011W	18	1	16	307.180	1006.370	0.610	112.780	0.920
2011W	18	2	19	338.450	1324.870	0.510	83.190	0.990
2011W	18	3	22	252.850	1004.910	0.500	48.930	0.980
2011W	18	4	50	853.320	3167.980	0.540	52.950	0.990
2011W	19	1	17	331.620	1173.340	0.570	102.200	0.980
2011W	19	2	33	687.330	2447.980	0.560	58.040	0.930
2011W	19	3	67	632.570	4650.900	0.270	27.030	0.700
2012S	22	1	5	98.388	263.789	0.746	104.758	0.988
2012S	22	2	8	159.772	464.564	0.688	99.151	0.966
2012S	22	3	12	305.778	610.637	1.002	129.905	0.996
2012S	22	4	13	393.321	1307.232	0.602	141.858	0.967
2012S	20	1	3	87.495	192.031	0.911	90.491	0.990
2012S	20	2	4	75.653	180.771	0.837	104.760	0.993
2012S	21	1	3	44.272	100.948	0.877	103.249	0.977
2012S	21	2	7	213.625	512.112	0.834	77.715	0.980
2012S	21	3	13	449.593	1209.382	0.744	74.737	0.993
2012S	21	4	12	430.297	1092.555	0.788	112.789	0.993
2012S	21	5	9	246.606	578.781	0.852	111.128	0.994
2012S	21	6	8	241.531	622.225	0.776	107.559	0.991
2012S	21	7	18	574.291	1673.891	0.686	99.187	0.990
2012S	23	1	6	134.750	541.467	0.498	55.592	0.982
2012S	23	2	5	101.804	360.488	0.565	126.427	0.925
2012S	23	3	7	131.138	466.116	0.563	156.511	0.941
2012S	23	4	7	95.003	368.607	0.515	105.067	0.994
2012S	23	5	9	264.834	686.150	0.772	106.868	0.980
2012S	23	6	13	289.994	868.793	0.668	130.621	0.987
2012S	23	7	3	58.347	117.992	0.989	139.706	0.984
2012W	24	1	29	588.112	1974.630	0.596	76.769	0.973
2012W	24	2	22	212.471	792.605	0.536	17.769	0.888
2012W	24	3	31	683.769	2043.330	0.669	37.344	0.944
2012W	25	1	31	589.326	2305.386	0.511	76.460	0.818
2012W	25	2	77	1258.380	5407.788	0.465	278.230	0.992
2012W	26	1	74	799.956	4683.427	0.342	48.762	0.899
2013S	27	1	3	63.743	167.634	0.760	97.356	0.992
2013S	27	2	7	236.106	476.544	0.991	67.280	0.983
2013S	27	3	5	164.213	310.160	1.059	90.518	0.996
2013S	27	4	9	205.840	451.671	0.911	84.058	0.992
2013S	27	5	5	101.950	222.429	0.917	87.691	0.987
2013S	27	6	7	223.860	403.891	1.109	83.766	0.986
2013S	27	7	14	448.264	994.167	0.902	90.637	0.997
2013S	28	1	8	259.686	646.360	0.804	85.003	0.992
2013S	28	2	5	106.486	200.817	1.061	93.937	0.998
2013S	28	3	4	57.064	128.811	0.886	103.144	0.999

<b>Season</b>	<b>Seal ID</b>	<b>Foraging trip</b>	<b>Foraging trip duration (d)</b>	<b>Maximum distance reached from MI (km)</b>	<b>Total foraging trip distance (km)</b>	<b>Trip Curvilinear Index</b>	<b>Mean foraging trip direction (°)</b>	<b>Vector length (<i>Rho</i>)</b>
2013S	28	4	4	70.683	184.727	0.765	115.994	0.963
2013S	29	1	10	242.352	579.482	0.836	47.751	0.980
2013S	29	2	11	272.201	725.686	0.750	64.765	0.977
2013S	29	3	9	179.918	601.435	0.598	75.750	0.978
2013S	29	4	12	349.503	912.326	0.766	92.682	0.993
2013S	29	5	14	337.244	1081.074	0.624	97.254	0.947
2013W	31	1	25	547.050	1685.835	0.649	307.682	0.809
2013W	32	1	29	743.788	2519.940	0.590	303.920	0.787