

## Variability in haul-out behaviour by male Australian sea lions *Neophoca cinerea* in the Perth metropolitan area, Western Australia

Sylvia K. Osterrieder\*, Chandra Salgado Kent, Randall W. Robinson

\*Corresponding author: sylvia.osterrieder@gmail.com

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### Supplement.

Table S1. Results of the final GAM

Parametric terms	Estimate	SE	t-value	df	F	p-value
Intercept	2.5	0.13	18.4	–	–	$< 2^{-16}$
Period (overall)	–	–	–	7	32.6	$< 2^{-16}$
Period 2	-0.2	0.14	-1.6	–	–	0.11
Period 3	-1.2	0.21	-5.9	–	–	$5.10^{-9}$
Period 4	-1.6	0.21	-7.7	–	–	$3.96^{-14}$
Period 5	-1.3	0.20	-6.6	–	–	$7.73e^{-11}$
Period 6	-0.67	0.21	-3.1	–	–	0.0022
Period 7	0.31	0.14	2.2	–	–	0.027
Period 8	0.36	0.14	2.7	–	–	0.0074
Location (overall)	–	–	–	1	19.5	$1.12^{-5}$
Location Seal Island	0.56	0.13	4.4	–	–	$1.12^{-05}$
Time since Sunrise	0.02	0.004	5.3	–	–	$1.19^{-07}$
Tide	-0.25	0.09	-3.0	–	–	0.0032
Period *Location (overall)	–	–	–	7	7.3	$1.43^{-8}$
Period 2*Location Seal Island	-0.10	0.18	-0.54	–	–	0.59
Period 3*Location Seal Island	-0.004	0.26	-0.02	–	–	0.99
Period 4*Location Seal Island	-0.79	0.33	-2.4	–	–	0.017
Period 5*Location Seal Island	0.25	0.25	1.0	–	–	0.32
Period 6*Location Seal Island	0.50	0.26	1.8	–	–	0.077
Period 7*Location Seal Island	-0.36	0.17	-2.1	–	–	0.036
Period 8*Location Seal Island	-0.84	0.17	-4.9	–	–	$1.12^{-06}$
Smoother Temperature	–	–	–	4.6 (edf)	5.34	0.00014

Table S2. Proportion of juvenile, sub-adult, adult and unknown *Neophoca cinerea* hauling out on Seal and Carnac Islands in Period 1 to 8 (n = sample size of field days on the particular island and season)

<b>Season</b>	<b>Island (n)</b>	<b>Juveniles (% ± SD)</b>	<b>Sub-adults (% ± SD)</b>	<b>Adults (% ± SD)</b>	<b>Unknown (% ± SD)</b>
1	Carnac (11)	NA	NA	NA	NA
1	Seal (13)	NA	NA	NA	NA
2	Carnac (12)	3.7 (±4.5)	15.4 (±14.1)	61.8 (±19.9)	19.1 (±19.5)
2	Seal (11)	19.1 (±14.8)	17.0 (±11.5)	47.3 (±22.7)	16.5 (±20.2)
3	Carnac (10)	0.0 (±0.0)	2.0 (±6.3)	92.0 (±39.1)	6.0 (±9.7)
3	Seal (10)	6.0 (±10.4)	11.9 (±16.9)	76.1 (±35.5)	6.0 (±10.4)
4	Carnac (16)	0.0 (±0.0)	2.0 (±8.0)	92.0 (±49.4)	6.0 (±17.4)
4	Seal (10)	0.0 (±0.0)	9.5 (±20.1)	85.7 (±70.3)	4.8 (±15.1)
5	Carnac (13)	0.0 (±0.0)	4.1 (±10.0)	89.8 (±55.8)	6.1 (±11.6)
5	Seal (9)	14.3 (±21.4)	31.7 (±34.1)	54.0 (±24.5)	0.0 (±0.0)
6	Carnac (5)	12.2 (±14.9)	14.6 (±5.5)	68.3 (±22.2)	4.9 (±6.7)
6	Seal (4)	14.3 (±3.3)	31.4 (±5.7)	54.3 (±26.6)	0.0 (±0.0)
7	Carnac (10)	2.5 (±3.6)	49.2 (±17.2)	47.2 (±24.3)	1.0 (±3.2)
7	Seal (10)	6.3 (±5.2)	50.0 (±12.6)	43.3 (±12.1)	0.0 (±0.0)
8	Carnac (11)	3.1 (±3.0)	51.0 (±17.3)	43.2 (±26.2)	2.6 (±7.0)
8	Seal (11)	3.9 (±3.8)	52.0 (±19.6)	44.1 (±15.0)	0.0 (±0.0)