

The following supplement accompanies the article

Habitat preference and dive behavior of non-breeding emperor penguins in the eastern Ross Sea, Antarctica

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Table S1. Details on 20 non-breeding emperor penguins *Aptenodytes forsteri* satellite tagged in the eastern Ross Sea, Antarctica after their annual molt in 2013.

ID	Tag	Sex	Mass (kg)	Start Date	End Date	Penguin Days	Track Length (km)	Mean Max Dive Depth (range) (m)	Mean Dive Duration (range) (min)
113023	SPLASH	F	29.5	15-Mar-13	24-Jul-13	131.3	1893.1	53.4 (5 - 419.5)	4.1 (1 - 27.8)
122930	SPOT	M	33.5	15-Mar-13	30-Apr-13	46.5	836.9	NA	NA
122931	SPOT	F	37.0	17-Mar-13	29-Mar-13	12.6	273.8	NA	NA
122932	SPOT	F	31.0	17-Mar-13	14-Nov-13	241.9	4883.3	NA	NA
122933	SPOT	M	37.0	17-Mar-13	17-Apr-13	31.4	469.0	NA	NA
122934	SPLASH	F	32.0	14-Mar-13	31-Mar-13	16.9	415.1	91.7 (5.0 - 371.5)	4.2 (1.0 - 16.2)
122935	SPLASH	M	33.0	14-Mar-13	31-Jan-14	323.4	3984.1	87.9 (5.0 - 411.5)	4.5 (1.0 - 28.3)
122936	SPLASH	M	27.0	14-Mar-13	17-May-13	64.2	861.2	60.0 (5.0 - 339.5)	3.6 (1.0 - 22.5)
122937	SPLASH	F	28.0	14-Mar-13	16-Apr-13	33.5	791.2	76.6 (5.0 - 395.5)	3.7 (1.0 - 29.5)
122938	SPLASH	F	30.5	14-Mar-13	7-May-13	53.8	1194.1	99.5 (5.0 - 443.5)	4.5 (1.0 - 19.5)
122939	SPLASH	M	31.5	14-Mar-13	21-May-13	68.6	1532.9	67.1 (5.0 - 459.5)	4.2 (1.0 - 29.7)
122940	SPLASH	F	29.0	14-Mar-13	5-Oct-13	204.9	4587.9	119.6 (5.0 - 411.5)	5.5 (1.0 - 30.1)
122941	SPLASH	M	32.0	14-Mar-13	21-Oct-13	220.5	4002.4	79.4 (5.0 - 411.5)	4.4 (1.0 - 31.7)
122942	SPLASH	M	28.0	15-Mar-13	15-Aug-13	153.4	2324.9	83.6 (5.0 - 379.5)	4.5 (1.0 - 23.1)
122943	SPLASH	F	32.0	14-Mar-13	9-Apr-13	26.0	510.2	81.9 (5.0 - 411.5)	3.6 (1.0 - 32.2)
122944	SPLASH	M	34.0	14-Mar-13	6-Apr-13	22.6	424.9	78. (5.0 - 411.5)	3.7 (1.0 - 18.8)
122945	SPLASH	M	34.5	14-Mar-13	4-May-13	50.2	884.6	95.3 (5.0 - 443.5)	4.4 (1.0 - 28.9)
122946	SPLASH	F	26.0	15-Mar-13	30-Dec-13	290.7	8983.0	114.9 (5.0 - 363.5)	5.2 (1.0 - 31.6)
122947	SPLASH	F	30.0	15-Mar-13	27-Jul-13	134.8	1961.8	74.7 (5.0 - 395.5)	4.2 (1.0 - 29.0)
122948	SPLASH	M	34.5	15-Mar-13	29-Aug-13	167.0	2388.7	85.9 (5.0 - 403.5)	4.6 (1.0 - 30.7)

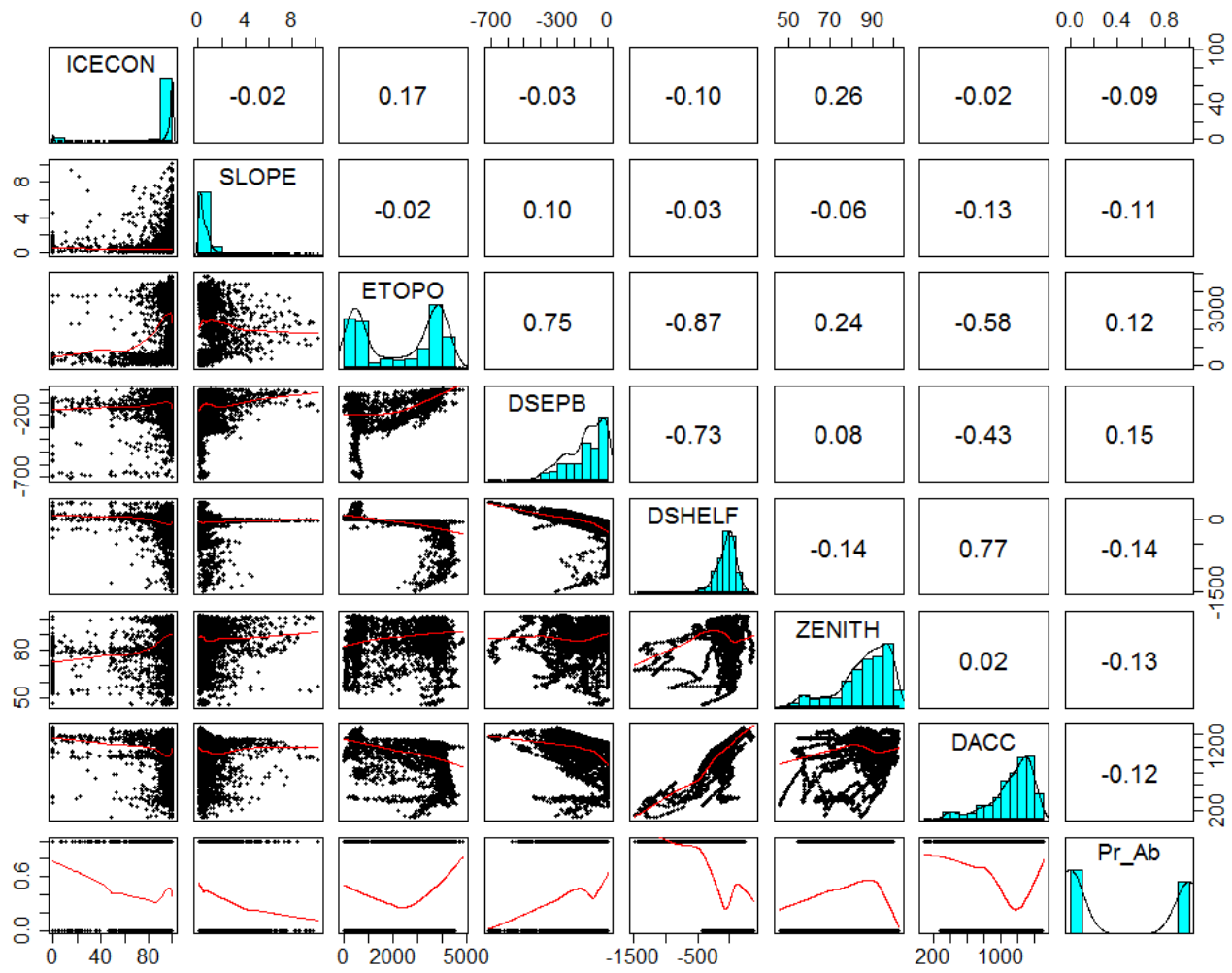


Fig. S1. Correlation matrix using the Spearman method to test the level of covariate dependency of all variables considered in a habitat suitability model of 20 non-breeding emperor penguins *Aptenodytes forsteri* satellite tagged after their annual molt in 2013.

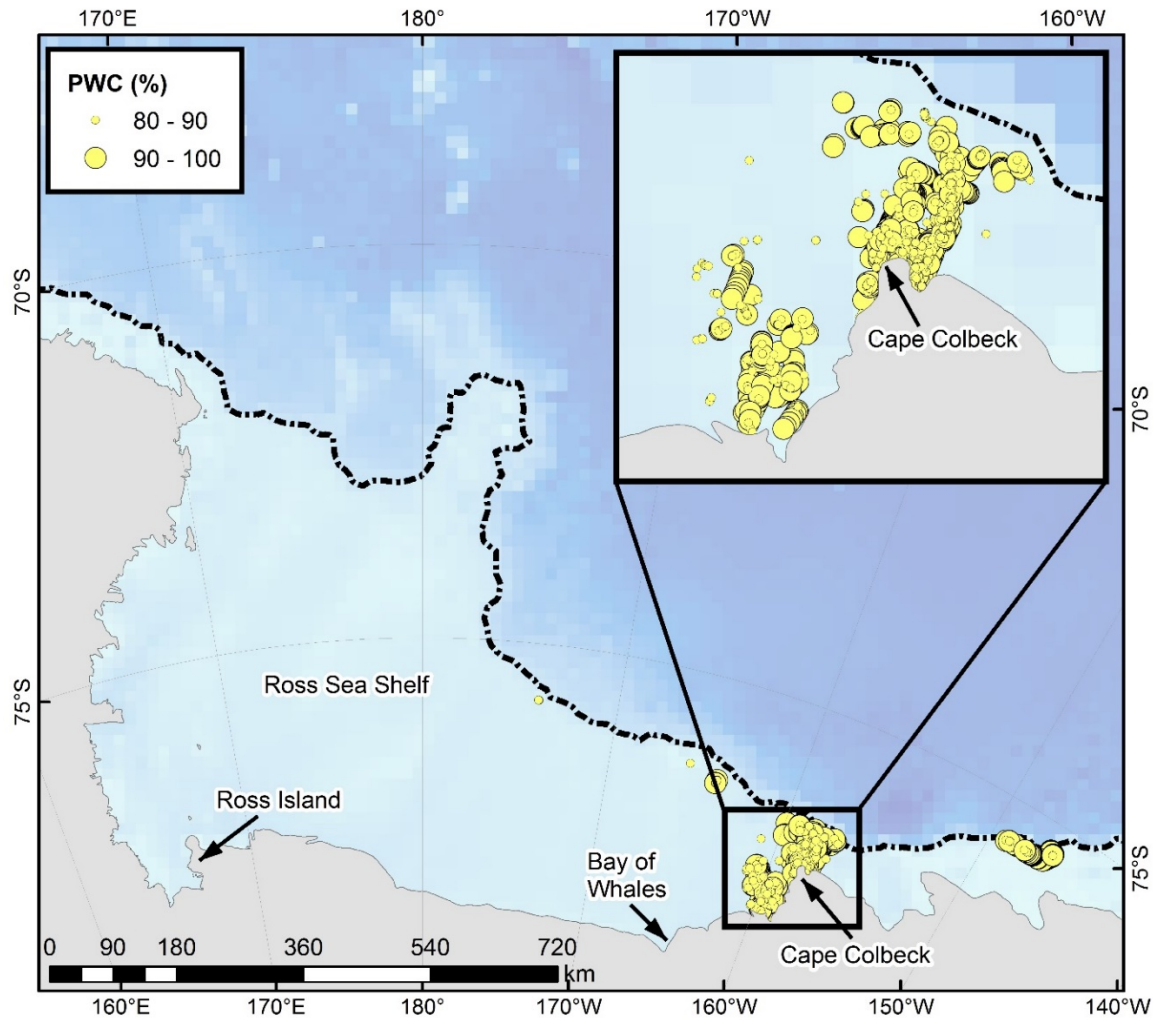


Fig. S2. Benthic dives of 16 non-breeding emperor penguins *Aptenodytes forsteri* after their annual molt in 2013 in which maximum dive depth was 80 – 100 % of the available bathymetric depth at that location (percent water column depth (PWC, %)). The dashed black line indicates the continental shelf break (1000 m isobath).

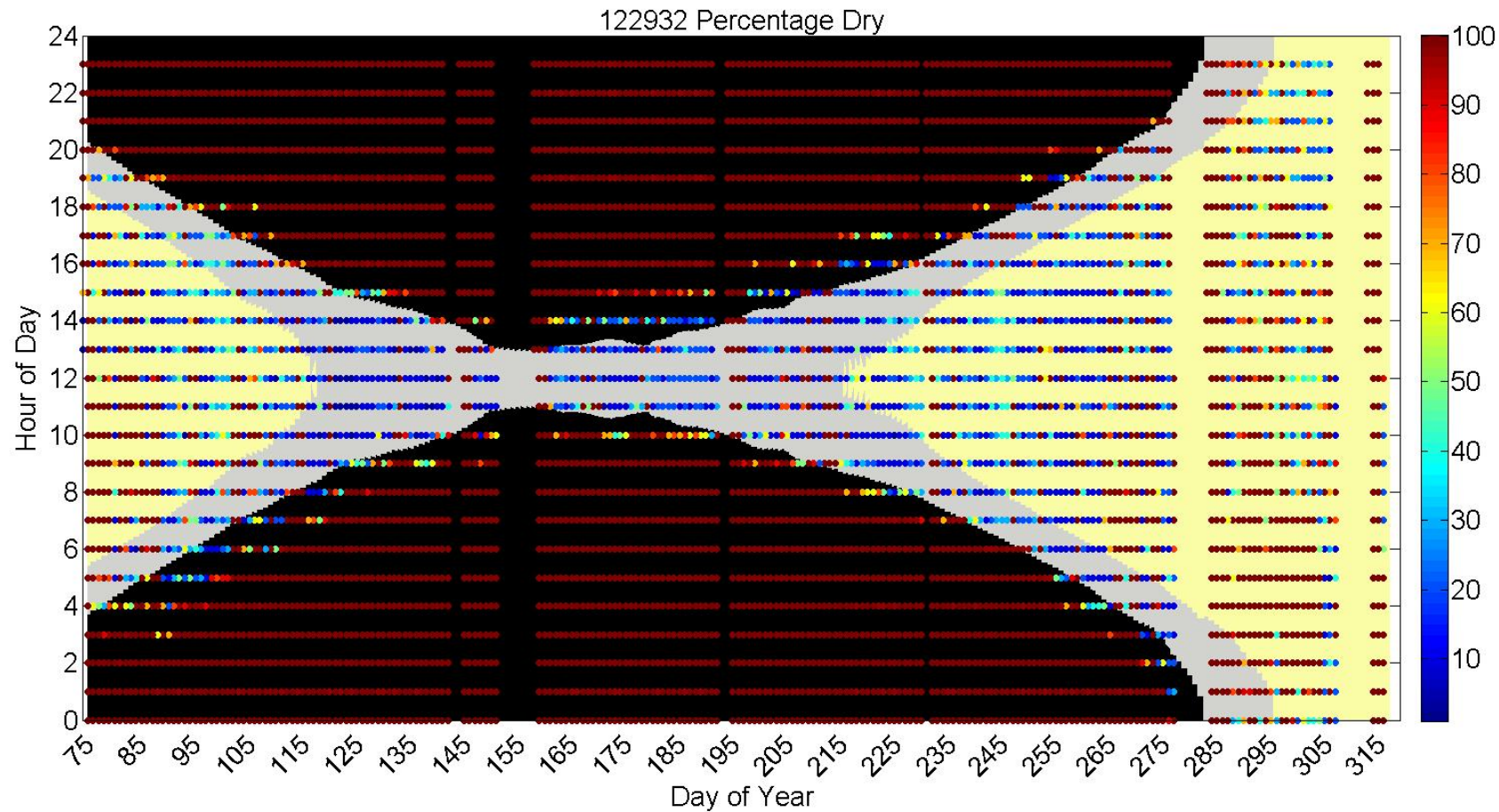


Fig. S3. The hourly percentage of time dry for emperor penguin *Aptenodytes forsteri* ID 122932 tracked from 17 March to 14 November 2013, relative to the daily light cycle; dark red points indicate that the tag was dry for the entire hour. Periods between sunrise and sunset are shown in yellow, periods before sunrise or after sunset when the sun is $\leq 6^\circ$ below the horizon denotes twilight and are shown in grey, and periods when the sun is $> 6^\circ$ below the horizon is considered night and shown in black.