Supplementary material

Environmental factors influencing guanaco distribution and abundance in central Patagonia, Argentina

Julieta Pedrana[A,B,F]*, Alejandro Travaini*[A]*, Juan Ignacio Zanón*[C]*, Sonia Cristina Zapata*[A]*, Alejandro Rodríguez*[D] *and Javier Bustamante*[E]

[A]Centro de Investigación Puerto Deseado, Universidad Nacional de la Patagonia Austral, CONICET, Avenida Prefectura Naval S/N, 9050 Puerto Deseado, Santa Cruz, Argentina.

[B]Present address: Recursos Naturales y Gestión Ambiental. Instituto Nacional de Tecnología Agropecuaria, EEA Balcarce, CC 276, 7620 Balcarce, Argentina.

[C]Instituto de Ciencias de la Tierra y Ambientales de La Pampa (INCITAP-CONICET), Universidad Nacional de La Pampa, Avenida Uruguay 151, 6300 Santa Rosa, Argentina.

[D]Department of Conservation Biology. Estación Biológica de Doñana, CSIC, C/Américo Vespucio 26, 41092 Sevilla, España.

[E]Department of Wetland Ecology & Remote Sensing and GIS lab (LAST-EBD), Estación Biológica de Doñana, CSIC, C/Américo Vespucio 26, 41092 Sevilla, España.

[F]Corresponding author. Email: pedrana.julieta@inta.gob.ar

Table S1. GAM models obtained by stepwise selection on the variables influencing guanaco occurrence

For each competing models, the AIC and the difference between AIC of the current model and the most-parsimonious model (ΔAIC) are given. AUC values computed for 100 replicate parameterizations of the models with an independent validation database are given. All 100 replicates had AUC ≥ 0.7. Subscript numbers denote selected variables as smoothing splines with 3 or 2 degrees of freedom.

GAMs models	AIC	ΔAIC	AUC ± se
$Mean.NDVI_2$ + Distance.urban + $Altitude_3$ + $Distance.oil_2$	411	0	0.82 ± 0.02
$Mean.NDVI_3$ + Distance.urban + $Altitude_3$+ Distance.oil	411	0.11	0.82 ± 0.03
$Altitude_2$ + $Distance.stream_3$ + $Distance.urban_2$ + $Distance.oil_2$	412	1.16	0.80 ± 0.02