

Supplementary Information

Improving predation risk modelling: prey-specific models matter

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Supplemental material S1

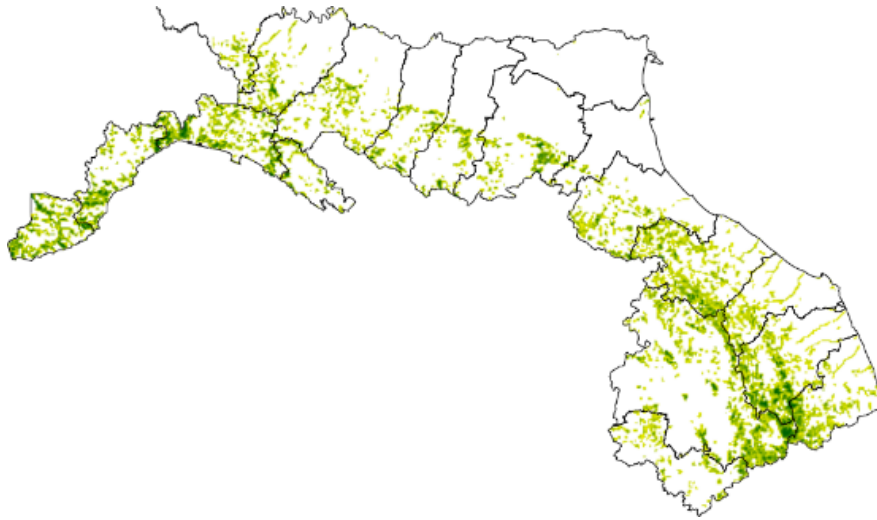


Figure S1: Map of accumulated percentage of grasslands and shrub-lands coverage. Yellow-green scale indicates low-high percentage of accumulated coverage, white corresponds to values of accumulated coverage equal to zero

Supplemental material S2

Table S2: Independent validations carried out 10 times with occurrences of depredation events on cattle and sheep not used to develop 12 species distribution models (artificial neural network, ANN; boosted regression trees, BRT; classification tree analyses, CTA; flexible discriminant analyses, FDA; generalized additive models, GAM; generalized linear models, GLM; factorial decomposition of Mahalanobis distances, MADIFA; multivariate adaptive regression splines, MARS; maximum entropy algorithm, MAXENT; maximum-likelihood model, MAXLIKE; MAXENT model using the glmnet package for regularized generalized linear models, MAXNET; random forests, RF) and their weighted ensemble prediction (wEP). Area Under the Curve (AUC) ranges between 0 and 1 (worse than a random model and best discriminating model, respectively). True Skill Statistic (TSS) and Boyce’s Index (BI) ranges between -1 and 1 (higher values indicate a good predictive accuracy, while 0 indicates random prediction). Average values are shown

Model	Cattle			Sheep		
	AUC	TSS	BI	AUC	TSS	BI
ANN	0.802	0.771	0.928	0.801	0.762	0.883
BRT	0.897	0.779	0.914	0.827	0.759	0.868
CTA	0.801	0.781	0.939	0.836	0.795	0.904
FDA	0.821	0.785	0.894	0.833	0.814	0.899
GAM	0.896	0.768	0.904	0.843	0.797	0.941
GLM	0.895	0.796	0.921	0.889	0.785	0.916
MADIFA	0.891	0.807	0.863	0.873	0.787	0.939
MARS	0.825	0.781	0.887	0.825	0.773	0.935
MAXENT	0.881	0.796	0.89	0.873	0.801	0.938
MAXLIKE	0.891	0.792	0.857	0.865	0.795	0.903
MAXNET	0.885	0.764	0.935	0.839	0.765	0.911
RF	0.899	0.766	0.876	0.871	0.811	0.945
wEP	0.896	0.797	0.931	0.866	0.768	0.899