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Fourcade, Y., Besnard, A. G. and Secondi, J. 2016. Evaluating interspecific niche overlaps in environmental and geographic spaces to assess the value of umbrella species. – J. Avian Biol. doi: 10.1111/jav.01153

Supplementary material

Appendix 1

Table A1: Evaluation of species distribution models computed for each species, using the Area Under the receiver operating Curve (AUC), sensitivity, specificity and the True Skill Statistics (TSS). Evaluations are reported as the mean and standard-deviation of the 100 bootstrap replicates. Evaluation of the Corncrake model was also calculated using old occurrences (1991) as test points.

Species	AUC		Sensitivity		Specificity		TSS	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Corn Bunting	0.91	0.03	0.88	0.06	0.78	0.04	0.65	0.08
Reed Bunting	0.94	0.02	0.88	0.06	0.87	0.03	0.75	0.06
Yellow Wagtail	0.89	0.03	0.87	0.06	0.73	0.04	0.60	0.08
Whinchat	0.92	0.02	0.89	0.04	0.79	0.02	0.68	0.04
Corncrake								
Bootstrap of current data	0.91	0.02	0.89	0.04	0.77	0.04	0.66	0.05
Old data	0.88	--	0.82	--	0.78	--	0.59	--

Fig. A1: MaxEnt response curves for each species modelled

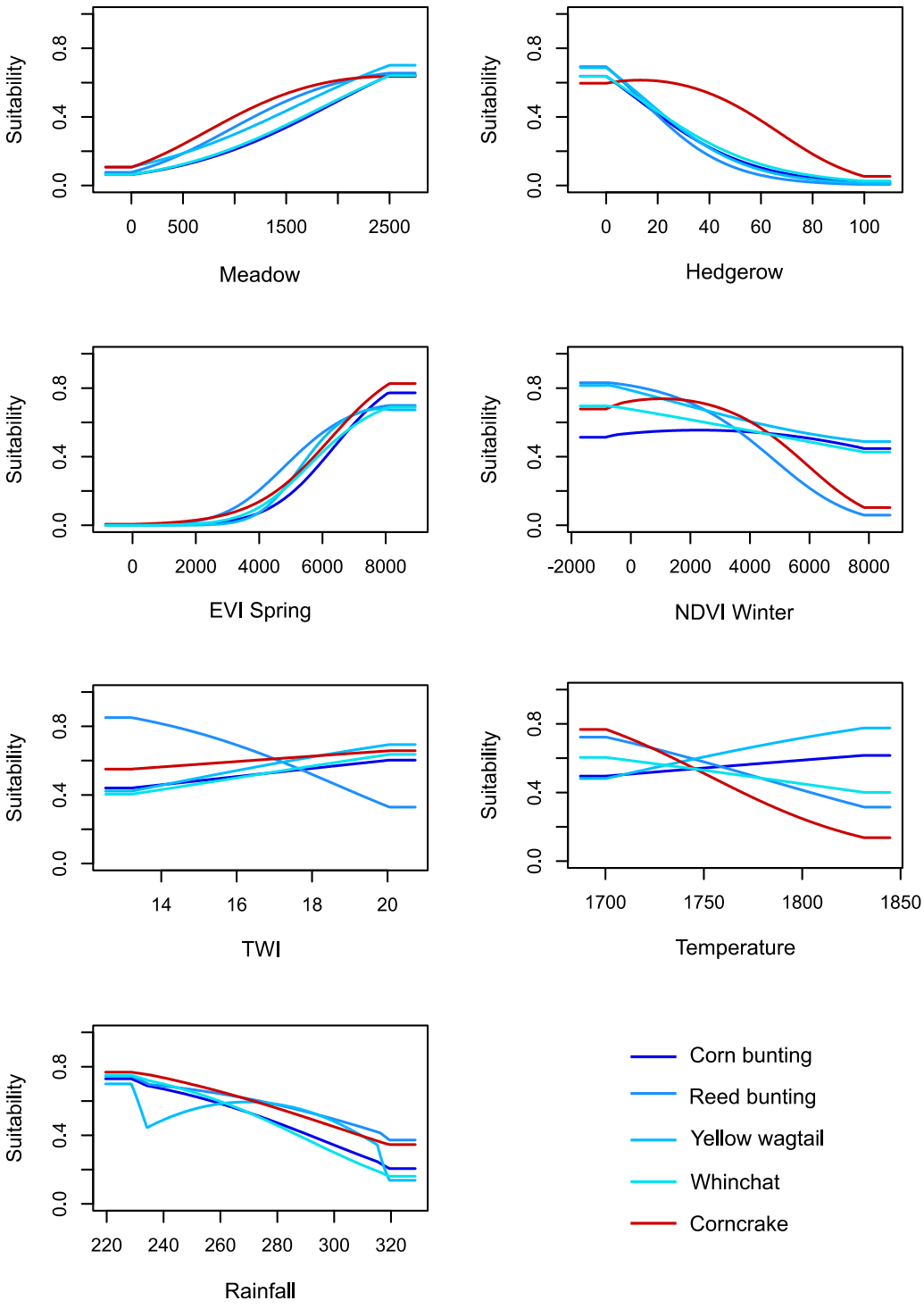


Fig. A2: Species distribution models for each species. Maps show the distribution of habitat suitability (from blue – unsuitable – to red – perfectly suitable) across the study region (see Figure 1 for additional information on study area extent and location), as represented by the logistic output of MaxEnt models.

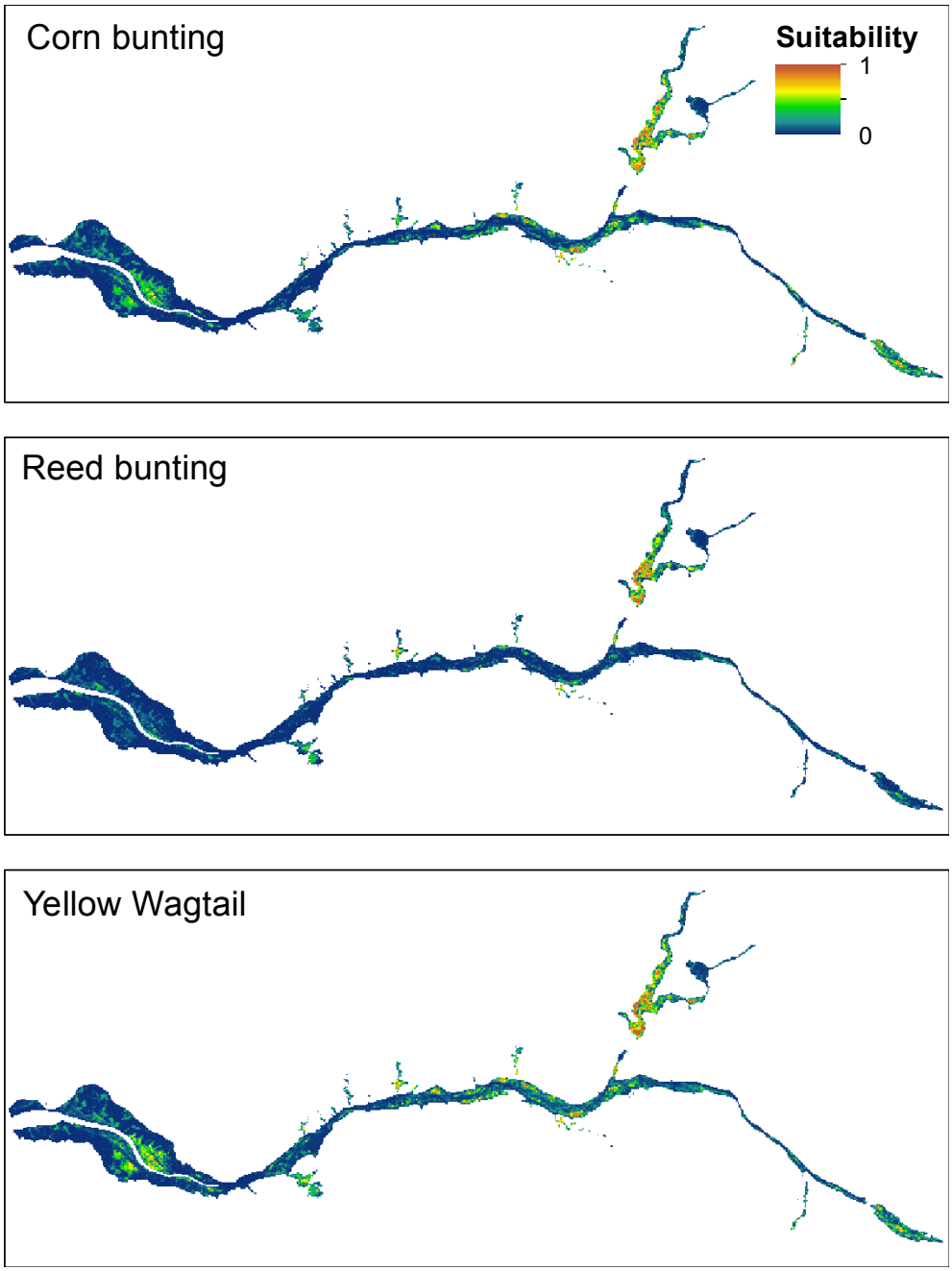
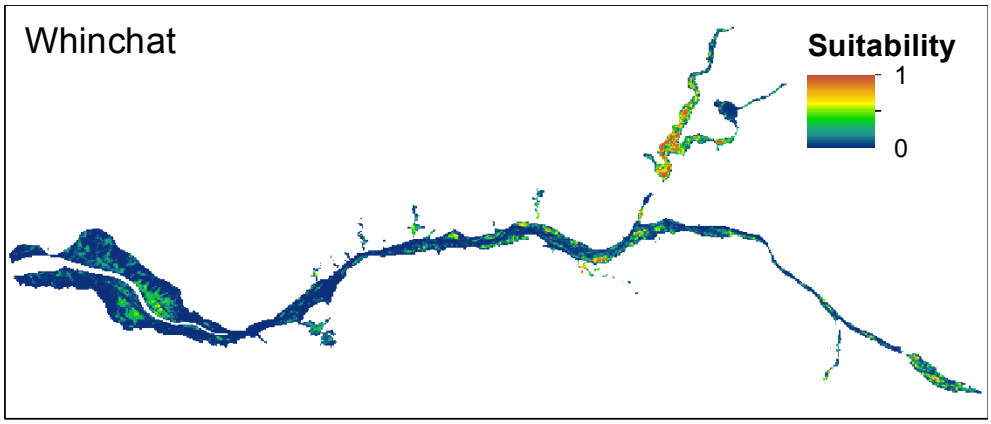


Fig. A2 (continued)



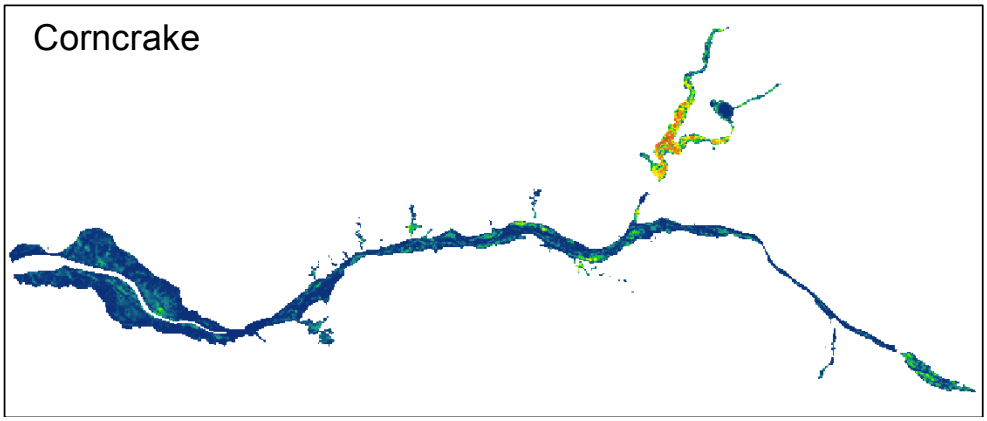


Fig. A3: Overlap, in the environmental space (C_{env}), of each focal species over each other species (Corn Bunting: ○, Reed Bunting: □, Yellow Wagtail: ◊, Whinchat: Δ, Corncrake: ■), and over the 4 other species merged (●), as a function of the threshold used to convert occurrences density to presence/absence. Model-specific thresholds are shown as arrows.

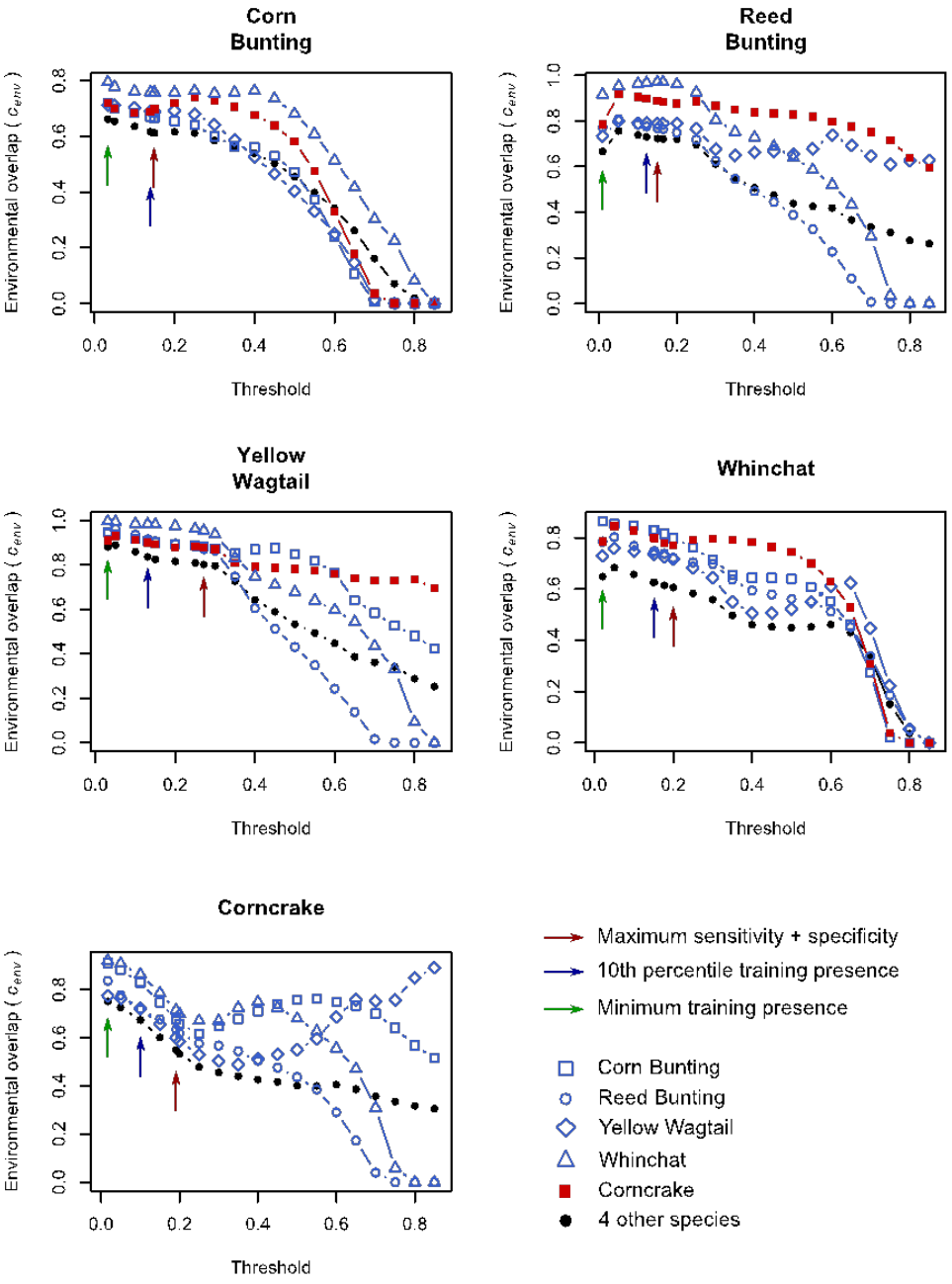
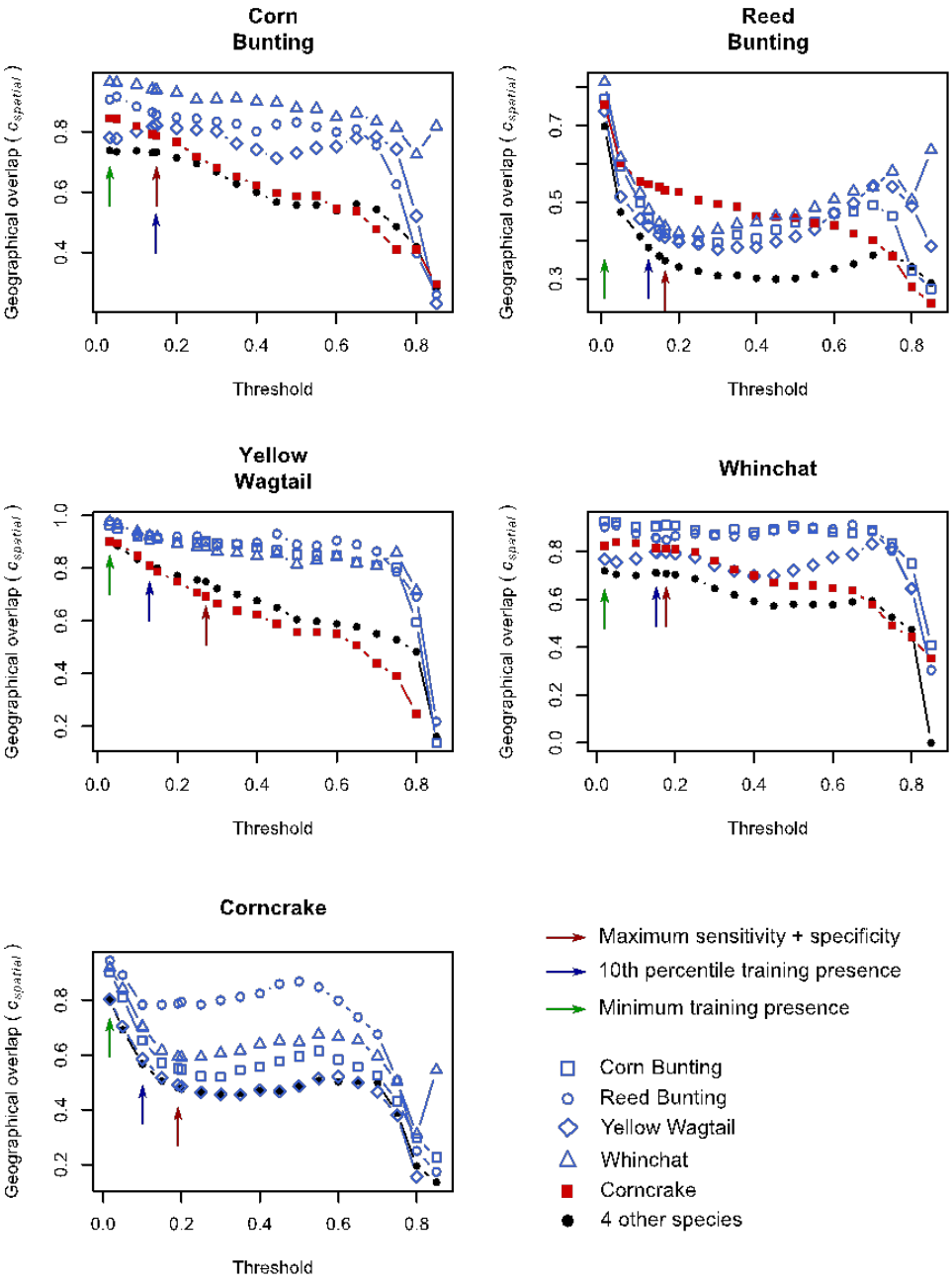



Fig. A4: Overlap, in the geographical space ($C_{spatial}$), of each focal species over each other species (Corn Bunting: □, Reed Bunting: ○, Yellow Wagtail: ◊, Whinchat: Δ, Corncrake: ■), and over the 4 other species merged (●), as a function of the threshold used to convert SDM suitability to presence/absence. Model-specific thresholds are shown as arrows.