

Appendix 1. Summary of significant effects of land-use parameters and abiotic factors in forests (forest management index Formi, proportion of non-native trees, proportion of dead wood with saw cuts, proportion of wood harvested, pH and soil moisture) and grasslands (land-use index LUI, mowing, grazing, fertilization, pH and soil moisture) on the community weighted mean of the maximum shell size, the number of offspring, light preference, humidity preference, drought resistance and inundation tolerance. * p < 0.05, ** p < 0.01, *** p < 0.001. ↓ negative effect, ↑ positive effect.

Community weighed mean of:		Swabian Alb	Hainich	Schorfheide	Community weighed mean of:		Swabian Alb	Hainich	Schorfheide	
Maximum shell size	Formi		↑***	↓***	Maximum shell size	LUI			↓***	
	Proportion of non-native trees	↓***	↑***	↓*		Mowing	↓*			↓*
	Proportion of dead wood with saw cuts	↓***	↑*	↓***		Grazing				
	Proportion of wood harvested	↓***	↑**			Fertilization	↑*			
	pH	↓**	↓***	↓***		pH	↓**	↓**		↓***
	Soil moisture			↓***		Soil moisture	↓*	↓**		
Number of offspring	Formi		↑**		Number of offspring	LUI	↑*	↑***	↓***	
	Proportion of non-native trees		↑***	↑*		Mowing				↑***
	Proportion of dead wood with saw cuts	↓***				Grazing	↓***	↑*		↓***
	Proportion of wood harvested					Fertilization				↓*
	pH		↓***	↑***		pH				↑***
	Soil moisture		↓*	↑*		Soil moisture				↑***
Light preference	Formi			↑***	Light preference	LUI	↑*	↑**		
	Proportion of non-native trees		↑***	↑***		Mowing				↑***
	Proportion of dead wood with saw cuts	↓**				Grazing	↓***	↑***		↓***
	Proportion of wood harvested					Fertilization	↓**			
	pH		↑*	↑*		pH		↑***		
	Soil moisture	↑**				Soil moisture		↑*		↑*
Humidity preference	Formi	↓*	↓***	↑***	Humidity preference	LUI	↑*	↑*	↓***	
	Proportion of non-native trees	↓***	↓***	↑***		Mowing				
	Proportion of dead wood with saw cuts	↑***	↓**	↓***		Grazing	↓*			↓***
	Proportion of wood harvested	↑**	↓*			Fertilization				↓**
	pH		↓***	↑***		pH		↓**		↑***
	Soil moisture	↑***				Soil moisture	↓*			↑***
Drought resistance	Formi		↑*	↓***	Drought resistance	LUI			↑***	
	Proportion of non-native trees	↑***	↑**	↓***		Mowing	↓***	↓**		↑**
	Proportion of dead wood with saw cuts	↓***				Grazing	↓***			↓**
	Proportion of wood harvested	↓***				Fertilization		↓**		
	pH		↑*	↑*		pH		↑*		
	Soil moisture	↓***				Soil moisture	↓**	↑***		
Inundation tolerance	Formi	↑***	↑*		Inundation tolerance	LUI			↓***	
	Proportion of non-native trees	↑***	↑***			Mowing				
	Proportion of dead wood with saw cuts	↑***				Grazing	↓***	↑***		↓**
	Proportion of wood harvested	↑***		↓**		Fertilization	↓**			↓**
	pH	↑***	↑***	↑*		pH	↑**	↑***		↑***
	Soil moisture	↓**		↑**		Soil moisture	↑***	↑***		↑***