Table 1. **Results of mixed-effects models testing for an association between the latitudinal position of *Arabidopsis lyrata* populations and (A) measures of pollinator service or (2) mechanistic variables potentially affecting pollinators**

		Latitude				
		Estimate		*SE*	R^2 m	R^2 c
A. Pollinator service	N					
Visitation rate	382	**0.398**	***	0.083	0.091	0.567
Pollination rate	382	**0.043**	***	0.007	0.125	0.489
Pollinator richness	382	0.062		0.050	0.007	0.555
Shannon index	382	0.018		0.013	0.007	0.480
B. Mechanistic variables						
Pop census size ($\log_{10}$)	13	**0.215**	*	0.081	0.369	0.369
Local flower density ($\log_{10}$)	166	-0.009		0.041	0.002	0.508
Flower size	520	0.073		0.802	0.000	0.668
Plant sp. richness	13	0.192		0.230	0.054	0.054
Mean T°	39	-0.361		0.386	0.053	0.611

The number of replicates (*N*) was the number of original observations, either per day for pollinator data, or on the level of population or camera recording at a patch for mechanistic variables. Estimates with *P*-values < 0.05 are written in bold; significance is indicated: (*) $P<0.1$, * $P<0.05$. R^2m and R^2c stand for the marginal and the conditional regression coefficient respectively. Results for random effects are not shown.

Table 2. Results of mixed-effects models testing for an association between population census size, the local flower density, flower size, flowering plant species richness, and daily mean temperature on pollination service to *Arabidopsis lyrata* flowers

		Pop census size (log10)			Local Flower density (log10)			Sq local flower density (log10)			Flower size			Plant sp. richness			Mean T°				
		Estimate		*SE*	*Estimate*		*SE*	*Estimate*		*SE*	*Estimate*		*SE*	*Estimate*		*SE*	*Estimate*		*SE*	R^2_m	R^2_c
Pollinator service	*N*																				
Visitation rate	382	0.845	(*)	0.477	**-1.776**	*	0.889	0.364		1.666	0.045		0.006	**0.397**	*	0.199	0.042		0.006	0.13	0.65
Pollination rate	382	**0.141**	**	0.005	-0.088		0.006	**-0.166**	**	0.006	0.001		0.001	0.013		0.002	0.004		0.001	0.14	0.55
Richness	382	0.231		0.334	**0.836**	*	0.399	-0.257		0.400	**0.090**	*	0.004	0.198		0.155	0.068		0.005	0.16	0.64
Shannon index	382	0.058		0.009	**0.223**	*	0.111	-0.051		0.111	0.021	(*)	0.001	0.051		0.004	0.016		0.002	0.13	0.57

Pollinator services are the dependent variables, while the mechanistic predictors are the independent variables. All predictors were mean centered. Test statistics include regression coefficients of each fixed effect (*estimate*) and standard error values (*SE*). Coefficients are written in bold when $P< 0.05$. Significance is indicated: (*) $P<0.1$, * $P<0.05$, ** $P<0.01$, *** $P<0.001$. R^2m and R^2c stand for the marginal and the conditional regression coefficient respectively. The *bobyqa* optimizer was used.