Table S2. Relationships between the three selected functional traits and the phylogeny. The first and second rows give the trait phylogenetic signal using Blomberg's K (Blomberg et al. 2003) and its probability of being different from 0 (p-value) for the species pools R-SP (Reduced Species Pool) and E-SP (Extended Species Pool) respectively. Plant height and SLA showed a low but significant phylogenetic signal regardless of the species pool considered. Seed mass however showed a moderate phylogenetic signal when considering R-SP, and a higher signal when considering GE-SP.

	Height		SLA		Seed mass	
	K	p-value	K	p-value	K	p-value
Phylogenetic signal in R-SP	0.08	<0.001	0.06	<0.001	0.29	<0.001
Phylogenetic signal in E-SP	0.08	<0.001	0.06	<0.001	0.44	<0.001

References

Blomberg, S.P., Garland Jr, T., & Ives, A.R. 2003. Testing for phylogenetic signal in comparative data: behavioral traits are more labile. *Evolution* 57: 717–745.