

Supplemental tables

Supplemental Table S1. Pearson correlations among life history traits of spring germinating plants (SG) of *Erodium oxyrhinchum* in wet springs.

	Ht	RI	NI	La	Nb	Ib	ArO	AsT	AIE	ArE
Ht	1									
RI	.330**	1								
NI	.757**	.499**	1							
La	.493**	0.046	.651**	1						
Nb	.612**	.499**	.788**	.550**	1					
Ib	.901**	.320**	.862**	.696**	.687**	1				
ArO	.762**	.286**	.814**	.818**	.665**	.927**	1			
AsT	.870**	.302**	.848**	.677**	.677**	.975**	.896**	1		
AIE	.673**	.395**	.878**	.817**	.729**	.859**	.884**	.841**	1	
ArE	.900**	.219*	.664**	.426**	.503**	.890**	.731**	.820**	.563**	1

Ht, height; RI, root length; NI, number of leaves; La, leaf area; Nb, number of branches; Ib, individual biomass; ArO, allocation of biomass

to roots; AsT, allocation to stems; AIE, allocation of biomass to leaves; ArE, allocation of biomass to reproduction. N = 128, *P < 0.05, **P < 0.01.

Supplemental Table S2 Pearson correlations among life history traits of autumn germinating plants (AG) of *Erodium oxyrhinchum* in wet springs.

	Ht	Rl	Nl	La	Nb	Ib	ArO	AsT	AIE	ArE
Ht	1									
Rl	0.228	1								
Nl	.805**	.393**	1							
La	.416**	.595**	.606**	1						
Nb	.637**	.552**	.667**	.829**	1					
Ib	.909**	.320**	.900**	.589**	.668**	1				
ArO	.849**	.458**	.869**	.665**	.736**	.940**	1			
AsT	.897**	.280*	.897**	.535**	.604**	.986**	.921**	1		
AIE	.644**	.537**	.851**	.870**	.775**	.836**	.874**	.812**	1	
ArE	.901**	0.107	.729**	.295*	.489**	.902**	.768**	.868**	.540**	1

Ht, height; Rl, root length; Ln, number of leaves; La, leaf area; Bn, number of branches; Ib, individual biomass; ArO, allocation of biomass to roots;

AsT, allocation of biomass to stems; AIE, allocation of biomass to leaves; ArE, allocation of biomass to reproduction. N =64, *P <0.05, **P <0.01.

Supplemental Table S3 Pearson correlations among life history traits of spring germinating plants (SG) of *Erodium oxyrhinchum* in dry springs.

	Ht	RI	NI	La	Nb	Ib	ArO	AsT	AlE	ArE
Ht	1									
RI	0.087	1								
NI	.241*	.279*	1							
La	.388**	0.162	.241*	1						
Nb	-0.044	-0.048	0.04	0.195	1					
Ib	0.246	0.083	.330**	.374**	.331**	1				
ArO	0.203	0.332	0.244	0.028	0.247	.630**	1			
AsT	.536**	.533**	.351*	.707**	.353*	.853**	0.278	1		
AlE	.617**	.618**	.412**	.701**	0.264	.808**	0.167	.933**	1	
ArE	0.291	0.343	.446**	.382*	.389**	.767**	.448**	.439**	.415**	1

Ht, height; RI, root length; Ln, number of leaves ; La, leaf area; Bn, number of branches; Ib, individual biomass; ArO, allocation of biomass to roots;

AsT, allocation of biomass to stems; AlE, allocation of biomass to leaves; ArE, allocation of biomass to reproduction. N = 128, *P <0.05, **P <0.01.

Supplemental Table S4 Pearson correlations among life history traits of autumn germinating plants (AG) of *Erodium oxyrhinchum* in dry springs.

	Ht	RI	NI	La	Nb	Ib	ArO	AsT	AlE	ArE
Ht	1									
RI	.242*	1								
NI	0.088	0.137	1							
La	.466**	.337*	-0.054	1						
Nb	.318**	0.205	.277**	0.142	1					
Ib	.287**	0.11	.449**	-0.119	.229*	1				
ArO	0.031	0.042	.400**	-0.064	0.115	.394**	1			
AsT	.293**	0.05	.387**	-0.13	0.148	.885**	.288**	1		
AlE	0.015	0.207	.613**	-0.176	0.132	.694**	.371**	.480**	1	
ArE	.390**	0.084	-0.009	0.004	0.086	.612**	0.206	.567**	0.142	1

Ht, height; RI, root length; Ln, number of leaves; La, leaf area; Bn, number of branches; Ib, individual biomass; ArO, allocation of biomass to roots;

AsT, allocation of biomass to stems; AlE, allocation of biomass to leaves; ArE, allocation of biomass to reproduction. N =128, *P <0.05, **P <0.01.