

Supporting Information: Competition between native Honewort (*Cryptotaenia canadensis*) and invasive Dame's Rocket (*Hesperis matronalis*) seedlings is mediated by relative germination timing

Tables

species	seed source	status	seed dormancy
<i>Anemone virginiana</i>	Prairie Moon	native	
<i>Asclepias syriaca</i>	Toadshade	native	
<i>Carex grayi</i>	Prairie Moon	native	
<i>Cryptotaenia canadensis</i>	Prairie Moon	native	
<i>Eurybia divaricata</i>	Toadshade	native	
<i>Hesperis matronalis</i>	American Meadows	invasive	
<i>Oenothera biennis</i>	Toadshade	native	
<i>Persicaria virginiana</i>	Prairie Moon	native	
<i>Silene stellata</i>	Prairie Moon	native	
<i>Silene vulgaris</i>	wild collected	invasive	
<i>Thalictrum dioicum</i>	Prairie Moon	native	

Table S1: Species information for germination assays. Seed were source from a) Prairie Moon Nursery, Winona, MN b) Toadshade Wildflower Farm, Frenchtown, NJ, c) American Meadows, Shelburne VT, or d) wild collected in unmanaged section of the Arnold Arboretum, Boston MA. Dormancy catagorizations are from ?

		Max germination (%)		Mean germination time (days)	
Stratification	Incubation	C. canadensis	H. matronalis	C. canadensis	H. matronalis
0.00	H	0.07 (0.1)	0.78 (0	15.25 (0	3.11 (0.6
0.00	L	0 (0)	0.75 (0.1	—	4.59 (0.7
2.00	H	0.03 (0)	1 (0	9 (1	2.3 (0.1
2.00	L	0.2 (0.2)	0.82 (0.1	10.25 (0.3	2.57 (0.5
4.00	H	0.18 (0.1)	0.97 (0	9.83 (3.6	2.49 (0.3
4.00	L	0.58 (0.3)	0.82 (0.1	11.06 (1.1	3.5 (0.6
5.00	H	0.08 (0.1)	1 (0	8.44 (4.7	2.33 (0.4
5.00	L	0.85 (0.1)	0.9 (0.1	7.67 (0.5	2.62 (0.6
6.00	H	0.25 (0.2)	0.98 (0	13.5 (6.9	1.91 (0.2
6.00	L	0.77 (0.1)	0.97 (0.1	8.11 (0.4	2.14 (0.2
7.00	H	0.6 (0)	0.87 (0	5.81 (0.2	2 (0
7.00	L	0.97 (0.1)	1 (0	6.29 (0.2	2.15 (0.2
8.00	H	0.5 (0.1)	1 (0	7.4 (0.3	2.06 (0.2
8.00	L	0.98 (0)	0.95 (0	6.09 (0.4	1.94 (0.1
9.00	H	0.6 (0.1)	0.98 (0	5.22 (0.7	1.74 (0.1
9.00	L	1 (0)	0.93 (0.1	6.04 (0.5	1.78 (0
11.00	H	0.73 (0.2)	0.98 (0	4.61 (0.2	1.86 (0.1
11.00	L	0.93 (0.1)	0.93 (0.1	5.04 (0.3	2.11 (0.5
13.00	H	0.77 (0.2)	0.88 (0	4.14 (0.3	1.89 (0.9
13.00	L	1 (0)	0.98 (0	4.16 (0.2	1.42 (0.3

Table S2: Max germination percentages and mean germination time for our species under all experimental treatment combination. H/L incubation (25 or 20C) and weeks of chilling

Figures

	Estimate	Est.Error	Q2.5	Q25	Q75	Q97.5
Intercept	2.59	0.25	2.10	2.41	2.76	3.09
n_Cc	-0.41	0.03	-0.47	-0.43	-0.38	-0.34
n_Hm	0.12	0.03	0.07	0.11	0.14	0.17
priority	0.15	0.03	0.08	0.13	0.17	0.21

Table S3: Estimates from the RGRD models

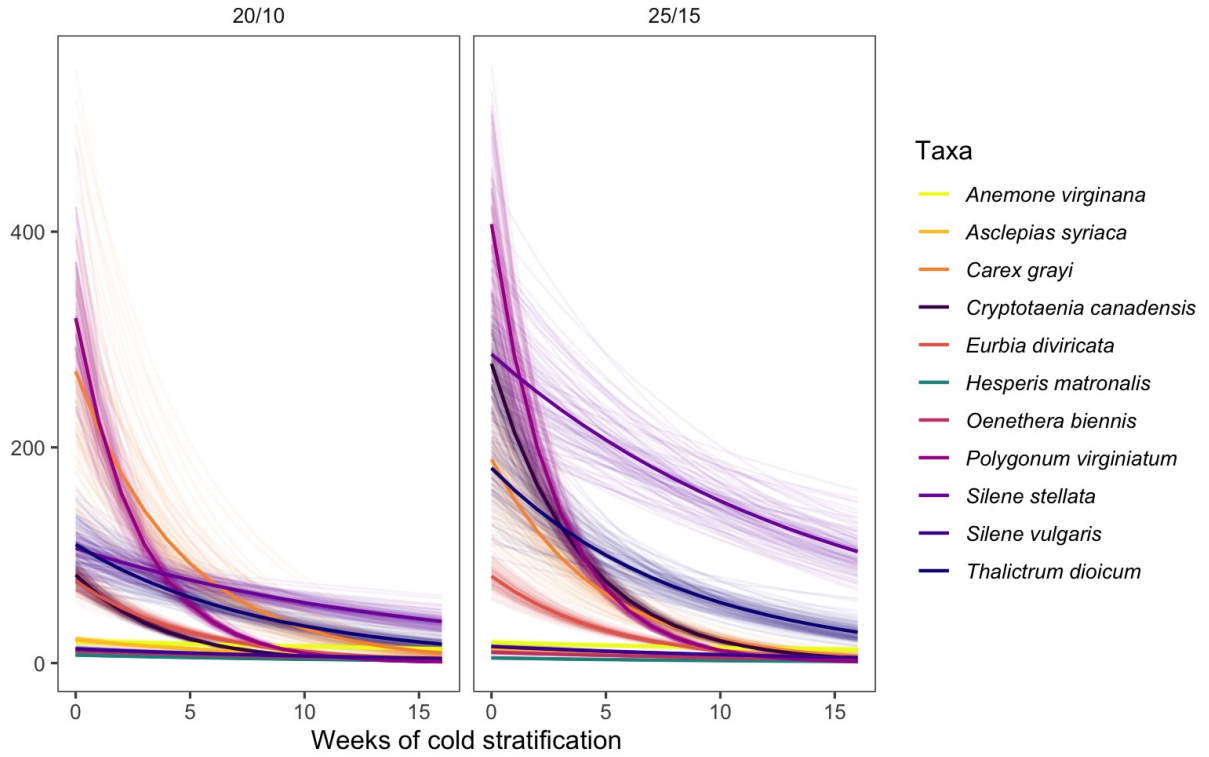


Figure S1: The effects of weeks of cold stratification at 4C on the time to 50% germination of 11 herbaceous perennials under a) cool and b) warm (20/10C vs. 25/15C day/night) incubation conditions, estimated with accelerated failure time model. The solid lines indicated indicated the mean estimate, while lighter line depict uncertainty with 100 random draws from the posterior distribution.

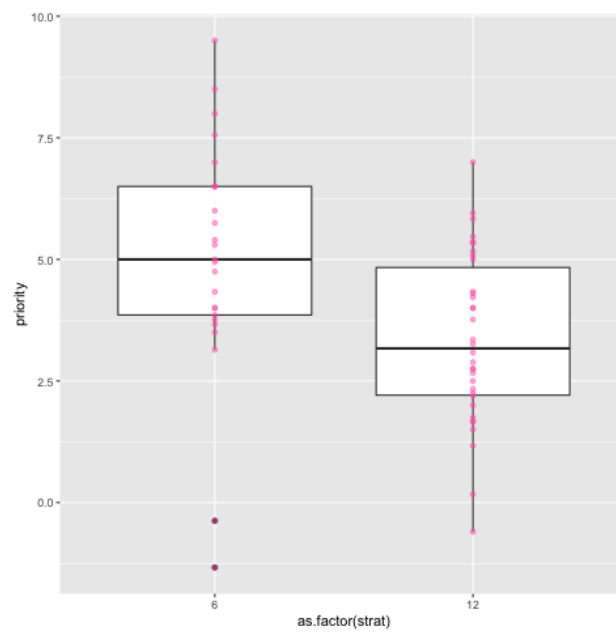


Figure S2: Differences in mean germination time between *Hesperis matronalis* and *C. canadensis* under 6 and 12 weeks of cold stratification.