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

February 23, 2022

1 Figures

2 Tables

species	seed source	status	seed dormancy
Anemone virginiana	Prairie Moon	native	
Asclepias syriaca	Toadshade	native	
Carex grayi	Prairie Moon	native	
Cryptotaenia canadensis	Prairie Moon	native	
Eurybia divaricata	Toadshade	native	
Hesperis matronalis	American Meadows	invasive	
Oenethera biennis	Toadshade	native	
Persicaria virginiana	Prairie Moon	native	
Silene stellata	Prairie Moon	native	
Silene vulgaris	wild collected	invasive	
Thalictrum diocicum	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 **?**

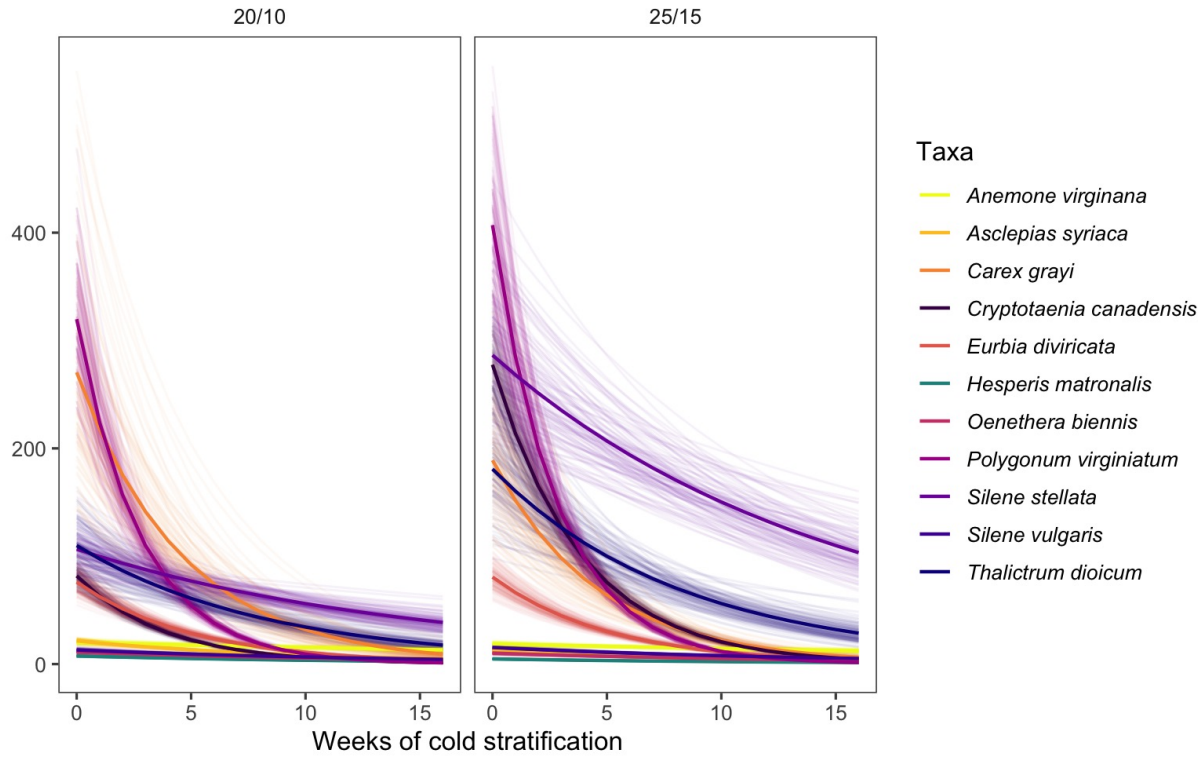

Figure S1: The effects of weeks of cold stratification at 4C on the time to 50% germination of 11 herbacious perennials under a) cool and b) warm (20/10C vs. 25/15C day/night) incubation conditions, estimated with accelerated failure time model. The solid lines indicated indicated the mean estimate,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

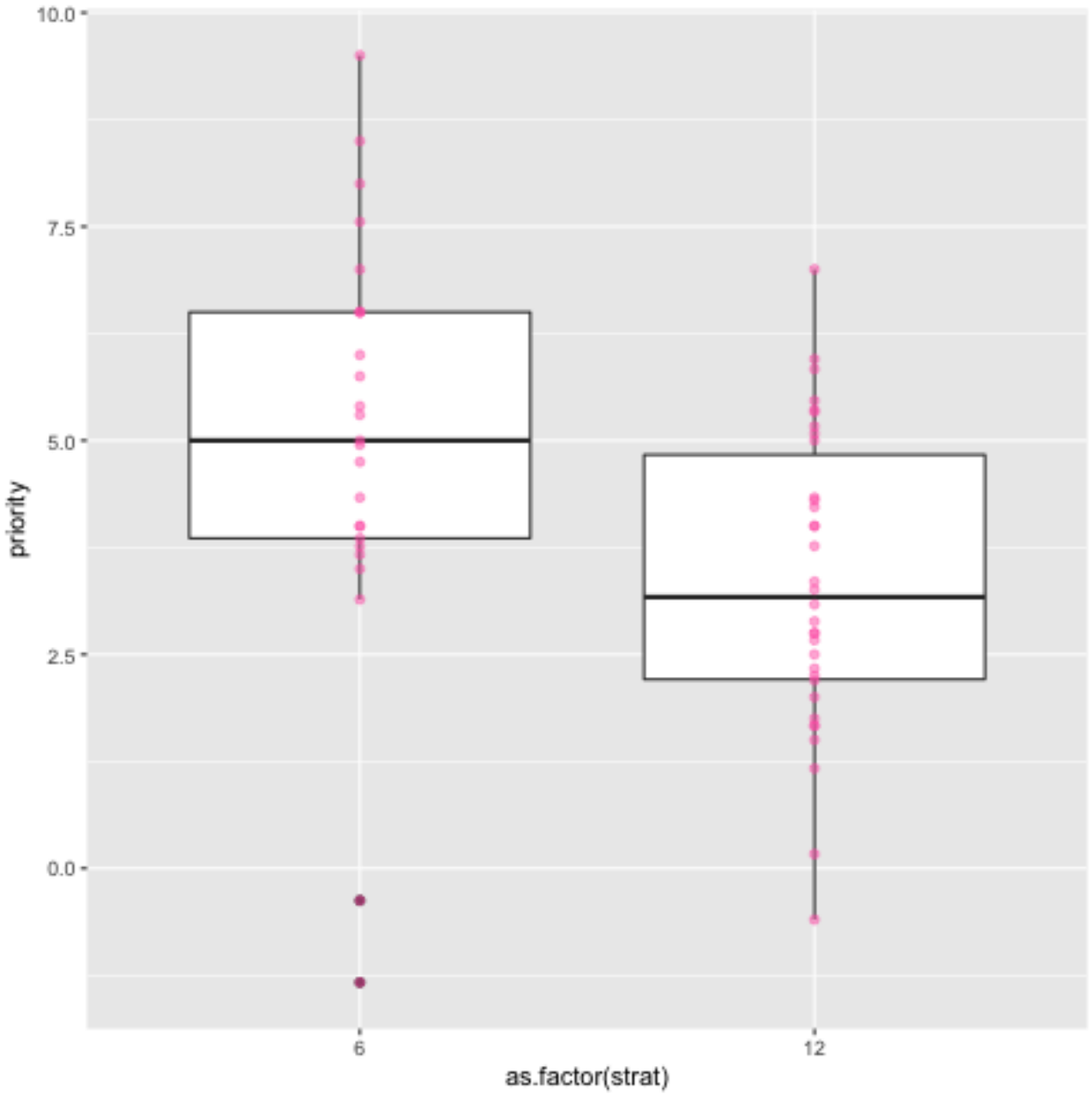

Figure S2: Differences in mean germination time between *Hesperis matronalis* and *C. canadensis* under 6 and 12 weeks of cold stratification.

		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 germnation time for our species under all experimental treatment combination. H/L incubation (25 or 20C) and weeks of chilling

	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