Tiffany A. Schriever and David A. Lytle. 2016. Convergent diversity and trait composition in temporary streams and ponds. *Ecosphere* 7.

Appendix S1. Summary of redundancy analysis (RDA) and eigenvector plot.

TABLE S1. Summary of redundancy analysis (RDA) of species presence-absence and trait composition in southeastern Ontario ponds (2008 and 2009) and Southeastern Arizona streams (2010-2011) based on ecosystem and hydroperiod. The RDA was significant with a total inertia of 2367 (Pseudo-$F_{2,34}$ = 20.03428, P = 0.001, 999 permutations). Both factors (terms) in the RDA were significant (ecosystem: F = 20.285, P = 0.005; hydroperiod: F = 19.784, P = 0.005; 199 permutations).

Trait	Trait code	RDA Axis 1	RDA Axis 2	Sum of all canonical eigenvalues
	Eigenvalue	1189.9	90.6	2367
	% variance	50.30%	3.80%	54%
Trait	Trait code	Eigenvector scores		
Body size	size1- <9mm	5.59	0.82	
	size2- 9-16mm	0.54	-0.71	
	size3- >16 mm	0.42	-1.11	
Voltinism	Volt1- semivoltine	0.30	-0.29	
	Volt2- univoltine	2.01	-1.53	
	Volt3- multivoltine	4.02	0.61	
Dispersal	Disp1- aquatic passive (aq-passive)	0.43	-0.21	
	Disp2- aquatic active (aq-active)	0.20	-0.10	
	Disp3- aerial passive (aer-passive)	-0.23	-0.54	
	Disp4- aerial active (aer-active)	6.12	-0.13	
Respiration	Resp1- integument	3.83	0.63	
	Resp2- gills	0.55	-1.01	
	Resp3- plastron, spiracle, vesicle	1.94	-0.84	
Functional Feeding Group	FFG1- collector-gatherer (C-G)	3.00	0.39	
	FFG2- shredder	0.81	0.12	
	FFG3- scraper/grazer	0.81	-0.13	

	FFG4- filter feeder (F-F)	0.11	-0.11
	FFG5- piercer-plants (P-plants)	0.05	-0.23
	FFG6- piercer-predator (P-pred)	0.72	-0.75
	FFG7- engulfer-predator (E-pred)	0.80	-0.53
Diapause	Diap1- diapause present	1.55	0.14
	Diap2- diapause possible	1.60	-0.45
	Diap3- no diapause	3.18	-0.83
Locomotion and habit	Locom1- burrower	0.91	0.06
	Locom2- interstitial	0.10	0.03
	Locom3- sprawler	2.40	0.05
	Locom4- clinger	2.07	0.46
	Locom5- swimmer	0.85	-0.67
	Locom6- skater	-0.07	-0.13
	Locom7- climber	0.16	-0.89

FIG. S1. RDA axis 1 eigenvector site scores plotted against hydroperiod gradient (number of days wet).