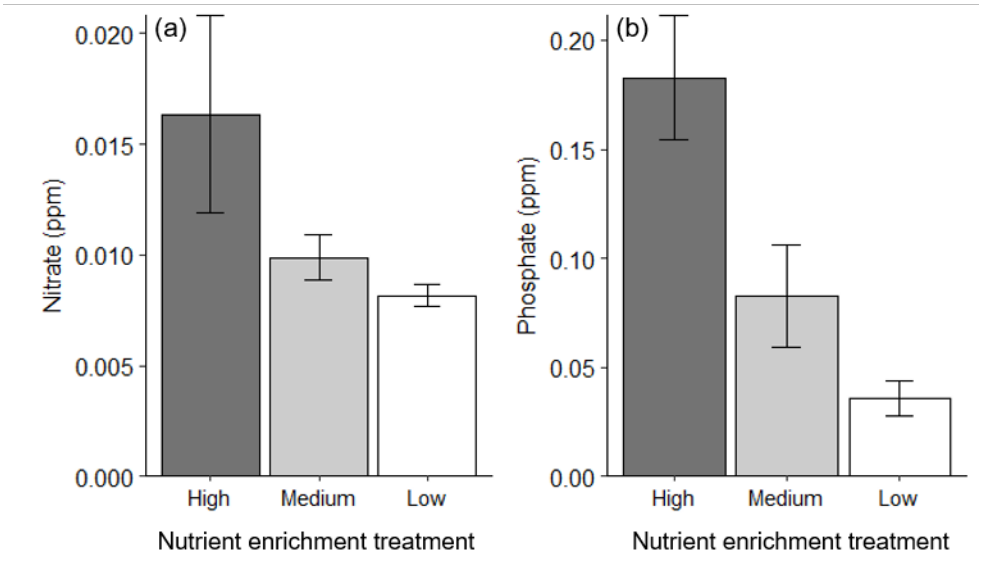
Supplemental Table S1: Results of analyses on plastic trait responses to 4x pulses versus 1x pulses (PI_{pulse}). Inferences are based on Wald χ^2 tests based on the given degrees of freedom (df).

Response	**Estimate (SE)[a]**	**df**	χ^2	**P**
Total biomass plasticity				
Intercept	-0.21 (0.14)	1	2.24	0.135
Lineage	0.08 (0.15)	1	0.26	0.610
Enrichment	0.23 (0.15)	1	2.33	0.127
Height plasticity				
Intercept	*0.40 (0.21)*	*1*	*3.54*	*0.060*
Lineage	*-0.45 (0.24)*	*1*	*3.59*	*0.058*
Enrichment	-0.39 (0.24)	1	2.67	0.102
Culm number plasticity				
Intercept	-0.19 (0.22)	1	0.75	0.385
Lineage	0.23 (0.24)	1	0.95	0.331
Enrichment	**0.50 (0.24)**	**1**	**4.31**	**0.038**
Root mass ratio plasticity				
Intercept	-0.020 (0.03)	1	0.35	0.553
Lineage	0.042 (0.04)	1	1.31	0.252
Enrichment	-0.009 (0.04)	1	0.07	0.797
Chlorophyll concentration plasticity				
Intercept	-0.18 (0.30)	1	0.34	0.561
Lineage	0.30 (0.33)	1	0.83	0.361
Enrichment	0.47 (0.33)	1	1.98	0.160
Specific leaf area plasticity				
Intercept	**0.27 (0.09)**	1	**9.36**	**<0.001**
Lineage	-0.06 (0.10)	1	0.36	0.548
Enrichment	**-0.27 (0.10)**	**1**	**7.84**	**0.005**

a: A positive parameter estimate for Enrichment indicates a trait plasticity increase in medium relative to high nutrient enrichment. A positive parameter estimate for Lineage indicates an increase in native relative to invasive *Phragmites* plants. Effects with P-values <0.05 are bolded and those <0.10 are italicized.

Supplemental Table S2: Results of analyses on plastic trait responses to high versus medium nutrient enrichment (PI_{enrich}). Inferences are based on Wald χ^2 tests based on the given degrees of freedom (df).

Response	Estimate (SE)[a]	df	χ^2	P
Total biomass plasticity				
Intercept	**3.24 (1.31)**	**1**	**6.08**	**0.014**
Lineage	1.15 (1.54)	1	0.56	0.455
Pulse magnitude	-1.28 (1.54)	1	0.69	0.405
Height plasticity				
Intercept	0.02 (0.18)	1	0.01	0.904
Lineage	0.15 (0.23)	1	0.40	0.527
Pulse magnitude	0.32 (0.23)	1	1.94	0.164
Culm number plasticity				
Intercept	**1.59 (0.27)**	**1**	**34.31**	**<0.001**
Lineage	0.13 (0.32)	1	0.17	0.683
Pulse magnitude	**-0.66 (0.32)**	**1**	**4.31**	**0.038**
Root mass ratio plasticity				
Intercept	-0.028 (0.04)	1	0.67	0.412
Lineage	-0.012 (0.04)	1	0.09	0.768
Pulse magnitude	0.007 (0.04)	1	0.03	0.861
Chlorophyll concentration plasticity				
Intercept	**2.85 (0.61)**	**1**	**21.77**	**<0.001**
Lineage	**-1.80 (0.86)**	**1**	**4.34**	**0.037**
Pulse magnitude	**-2.43 (0.91)**	**1**	**7.20**	**0.007**
Lineage × Pulse	*2.33 (1.25)*	*1*	*3.48*	*0.062*
Specific leaf area plasticity				
Intercept	-0.11 (0.08)	1	1.98	0.159
Lineage	0.06 (0.09)	1	0.39	0.531
Pulse magnitude	**0.24 (0.09)**	**1**	**7.00**	**0.008**

a: A positive parameter estimate for Pulse Magnitude indicates a trait plasticity increase under 4x relative to 1x pulse magnitudes. A positive parameter estimate for Lineage indicates an increase in native relative to invasive *Phragmites* plants. Effects with P-values <0.05 are bolded and those <0.10 are italicized.

Supplemental Figure S1: Potential a) nitrate and b) phosphate availability (± 1 SEM) from high, medium, and low nutrient enrichment treatments used in the common garden experiment. Nutrient availability was determined using ion exchange membranes at the end of the experiment. Note that the y-axis scale is an order of magnitude greater for phosphate than nitrate.