

A global meta-analysis of the ecological impacts of alien species on native amphibians

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SUPPLEMENTARY MATERIAL

Appendix S1. Details of the literature search performed in this meta-analysis.

The following search terms were inserted as the ‘topic’, which searches for these terms in the title, abstract and keywords of a record: (invas* OR alien OR exotic OR introduced OR non-native OR nonnative OR non-indigenous OR nonindigenous) AND (impact* OR effect* OR influence* OR consequence OR result) AND (amphib* OR anura* OR frog* OR toad* OR caudata OR urodele OR salamander* OR newt* OR caecilia*). This generated an initial number of 6590 results, which were refined to 1871 by selecting articles only from the following research areas: Environmental Sciences Ecology, Zoology, Biodiversity Conservation, Developmental Biology, Behavioral Sciences, Marine Freshwater Biology, Evolutionary Biology, Toxicology, Plant Sciences, Parasitology, Entomology, Agriculture, Fisheries, Water Resources, Remote Sensing and Forestry. Articles were then further excluded if their titles and abstracts were not relevant, which generated 260 manuscripts for potential inclusion in the meta-analysis. An additional search was performed on Google Scholar, using the search terms *invas**, *amphib** and *impact**. This latter search resulted in only 16 new papers (out of 1000), which indicated that the initial ISI Web of Knowledge search was comprehensive. Using results from these two searches and an additional inspection of the literature cited (reference section) in initially selected articles, we believe we attained an exhaustive coverage of the existing literature.

Appendix S2. Details of specific procedures used to calculate effect sizes in order to avoid pseudo-replication.

When a response variable was measured multiple times during an experiment or in multiple sampling occasions of fieldwork, two approaches were used: (1) when intervals were short (days, weeks or months), only results from the last sampling date available were used to calculate effect sizes, as effects of alien species often do not occur in the first moments of exposure; (2) when intervals were longer (different seasons or years), the mean value across sampling events was used. For studies using various densities of the same alien species as different treatments, only data from the highest density treatment were used for the analysis, as has been done in other studies (e.g. Twardochleb et al., 2013; Gallardo et al., 2016). When a study investigated several populations of an alien species (from different locations), these were considered independent cases if populations were from widely spatially distinct regions (e.g. different islands or countries); otherwise, the mean results value across populations was used. When studies included effects of different times since invasion (e.g. recent, intermediate and old invasion) or exposure to invasion (syntopic/experienced vs. allotopic/naïve), only effects representing the largest contrast, i.e., differences between the control and treatments with the longest time since invasion or longest experience, were used (see also Vilà et al.,

2011). The same reasoning was used for effects of caged vs. uncaged, and starved vs. fed alien species, in which cases only the largest contrast treatments (uncaged and fed) were used. In studies that examined the effect of different types of cues of alien species (chemical, visual, mechanical), treatments that included chemical cues, alone or in combination with other cues, were selected. This was because in aquatic environments chemical cues acquire special relevance as a reliable source of information in predator detection (Ferrari et al., 2010). Finally, in studies in which treatments combined the effects of alien species with other manipulated ecological factors (e.g. nutrient/pesticide addition, declining water volume), only data from non-manipulated treatments (i.e. alien species alone) was considered.

References

- Ferrari MCO, Wisenden BD, Chivers DP (2010) Chemical ecology of predator-prey interactions in aquatic ecosystems: a review and prospectus. *Can J Zool*, 88, 698-724.
- Gallardo B, Clavero M, Sánchez MI, Vilà M (2016) Global ecological impacts of invasive species in aquatic ecosystems. *Glob Change Biol*, 22, 151-163.
- Twardochleb LA, Olden JD, Larson ER (2013) A global meta-analysis of the ecological impacts of nonnative crayfish. *Freshw Sci*, 32, 1367-1382.
- Vilà M, Espinar JL, Hejda M, Hulme PE, Jarošík V, Maron JL, Pergl J, Schaffner U, Sun Y, Pyšek P (2011) Ecological impacts of invasive alien plants: a meta-analysis of their effects on species, communities and ecosystems. *Ecol Lett*, 14, 702-708.

Table S1. Original full dataset extracted from scientific articles and respective Hedges' d effect sizes and variance that were used in the meta-analysis. Literature reference numbers (Ref) are indicated in Table S2. Scientific names have been changed to the latest taxonomic nomenclature.

Ref	Native amphibian species	Alien species	Type of study	General response variable	Effect size	Variance
1	<i>Lithobates sphenoccephalus</i>	<i>Triadica sebifera</i>	Experimental	Development	-1.665	0.449
2	<i>Rana aurora aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	-0.522	0.689
2	<i>Rana aurora aurora</i>	<i>Lepomis gibbosus</i>	Experimental	Fitness/performance	-0.739	0.712
2	<i>Pseudacris regilla</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	0.314	0.675
2	<i>Pseudacris regilla</i>	<i>Lepomis gibbosus</i>	Experimental	Fitness/performance	-1.217	0.790
2	<i>Rana aurora aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	0.394	0.680
2	<i>Pseudacris regilla</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	0.099	0.667
3	<i>Acris crepitans crepitans</i>	<i>Ctenopharyngodon idella</i>	Experimental	Fitness/performance	-7.027	3.586
3	<i>Acris crepitans crepitans</i>	<i>Lepomis macrochirus</i>	Experimental	Fitness/performance	-7.027	3.586
3	<i>Acris crepitans crepitans</i>	<i>Orconectes rusticus</i>	Experimental	Fitness/performance	-2.858	1.010
3	<i>Lithobates clamitans</i>	<i>Orconectes rusticus</i>	Experimental	Fitness/performance	-0.890	0.550
3	<i>Lithobates clamitans</i>	<i>Ctenopharyngodon idella</i>	Experimental	Fitness/performance	-1.293	0.604
3	<i>Lithobates clamitans</i>	<i>Lepomis macrochirus</i>	Experimental	Fitness/performance	-2.109	0.778
3	<i>Acris crepitans crepitans</i>	<i>Ctenopharyngodon idella</i>	Experimental	Fitness/performance	-6.192	2.896
3	<i>Acris crepitans crepitans</i>	<i>Lepomis macrochirus</i>	Experimental	Fitness/performance	-6.033	2.775
3	<i>Acris crepitans crepitans</i>	<i>Orconectes rusticus</i>	Experimental	Fitness/performance	-2.620	0.929
3	<i>Acris crepitans crepitans</i>	<i>Orconectes rusticus</i>	Experimental	Growth/mass	2.625	0.931
4	<i>Ambystoma mexicanum</i>	<i>Oreochormis niloticus</i>	Experimental	Behaviour (activity)	-0.984	0.187
4	<i>Ambystoma mexicanum</i>	<i>Oreochormis niloticus</i>	Experimental	Behaviour (activity)	-0.560	0.173
4	<i>Ambystoma mexicanum</i>	<i>Oreochormis niloticus</i>	Experimental	Behaviour (activity)	-1.455	0.211
4	<i>Ambystoma mexicanum</i>	<i>Oreochormis niloticus</i>	Experimental	Behaviour (activity)	-2.245	0.272
4	<i>Ambystoma mexicanum</i>	<i>Oreochormis niloticus</i>	Experimental	Behaviour (avoidance)	0.533	0.173
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-1.673	0.540
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.851	0.436
5	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-2.615	0.742
5	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.412	0.500
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-1.110	0.462
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	0.547	0.415
5	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-0.420	0.409
5	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	1.408	0.499
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Development	-0.525	0.414
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Development	-4.213	1.287
5	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Development	-2.471	0.705
5	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Development	0.651	0.421
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.179	0.402
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	1.579	0.525
5	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.656	0.422
5	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	2.904	0.822
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.214	0.402
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.469	0.411
5	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-2.852	0.807
5	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	2.706	0.766
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	0.329	0.405

5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	-3.809	1.125
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	0.853	0.436
5	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	-1.677	0.541
6	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-2.847	0.335
6	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-0.434	0.171
6	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-0.778	0.179
6	<i>Triturus pygmaeus</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-2.364	0.283
6	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-1.653	0.224
6	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	0.506	0.172
6	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-0.779	0.179
6	<i>Triturus pygmaeus</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-2.415	0.288
6	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	0.331	0.169
6	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	0.050	0.167
7	<i>Rana temporaria</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	-0.303	0.337
7	<i>Bufo bufo</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	-1.166	0.390
7	<i>Hyla arborea</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	0.767	0.358
7	<i>Epidalea calamita</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	-0.409	0.340
7	<i>Pelophylax ridibundus</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	0.324	0.338
7	<i>Rana temporaria</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	1.853	0.476
7	<i>Bufo bufo</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	1.178	0.391
7	<i>Hyla arborea</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	1.223	0.396
7	<i>Pelophylax ridibundus</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	1.004	0.375
8	<i>Hyla femoralis</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	3.636	1.326
8	<i>Hyla femoralis</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	3.766	1.387
8	<i>Hyla femoralis</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	4.861	1.977
8	<i>Hyla squirella</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	10.678	7.627
8	<i>Hyla squirella</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	1.076	0.572
8	<i>Hyla squirella</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	3.399	1.222
8	<i>Gastrophryne carolinensis</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	6.314	2.992
8	<i>Gastrophryne carolinensis</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	9.790	6.491
8	<i>Gastrophryne carolinensis</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	1.415	0.625
8	<i>Anaxyrus quercicus</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	-2.088	0.772
8	<i>Anaxyrus quercicus</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	-0.428	0.511
8	<i>Anaxyrus quercicus</i>	<i>Clarius batrachus</i>	Experimental	Fitness/performance	2.188	0.799
9	<i>Rana temporaria</i>	<i>Trachemys scripta elegans</i>	Experimental	Behaviour (activity)	-0.778	0.072
9	<i>Rana temporaria</i>	<i>Trachemys scripta elegans</i>	Experimental	Behaviour (avoidance)	0.189	0.067
9	<i>Rana temporaria</i>	<i>Trachemys scripta elegans</i>	Experimental	Behaviour (avoidance)	0.542	0.069
9	<i>Rana temporaria</i>	<i>Trachemys scripta elegans</i>	Experimental	Behaviour (avoidance)	-0.591	0.070
10	<i>Litoria tornieri, nasuta, dahlia</i>	<i>Rhinella marina</i>	Experimental	Behaviour (activity)	-0.086	0.067
10	<i>Litoria tornieri, nasuta, dahlia</i>	<i>Rhinella marina</i>	Experimental	Behaviour (activity)	-0.313	0.067
11	<i>Lithobates sphenoccephalus</i>	<i>Lepomis macrochirus</i>	Experimental	Development	5.624	2.477
11	<i>Ambystoma maculatum</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	0.100	0.501
11	<i>Anaxyrus americanus</i>	<i>Lithobates catesbeianus</i>	Experimental	Growth/mass	-2.945	1.042
12	<i>Rana iberica</i>	<i>Salvelinus fontinalis</i>	Experimental	Behaviour (activity)	-3.825	0.472
13	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Development	-0.720	0.426
13	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Development	-3.979	0.596
13	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Fitness/performance	-1.131	0.464
13	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Fitness/performance	-3.579	0.520
13	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Fitness/performance	-1.500	0.256
14	<i>Lithobates sylvaticus</i>	<i>Gambusia affinis</i>	Experimental	Behaviour (activity)	0.220	0.183

15	<i>Pseudacris regilla</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (avoidance)	-0.717	0.082
16	<i>Plethodon angusticlavius</i>	<i>Dasypus novemcinctus</i>	Experimental	Behaviour (activity)	0.954	0.097
16	<i>Plethodon angusticlavius</i>	<i>Dasypus novemcinctus</i>	Experimental	Behaviour (activity)	0.743	0.093
16	<i>Plethodon angusticlavius</i>	<i>Dasypus novemcinctus</i>	Experimental	Behaviour (avoidance)	0.464	0.093
16	<i>Plethodon angusticlavius</i>	<i>Dasypus novemcinctus</i>	Experimental	Physiology	0.882	0.129
17	<i>Platyplectrum ornatum</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-12.808	10.752
18	<i>Litoria alboguttata</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.677	0.211
18	<i>Litoria alboguttata</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-8.127	1.851
18	<i>Litoria alboguttata</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.341	0.203
18	<i>Litoria gracilentia</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.216	0.201
18	<i>Litoria rubella</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	0.438	0.205
18	<i>Litoria rubella</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.451	0.205
18	<i>Platyplectrum ornatum</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.677	0.211
18	<i>Platyplectrum ornatum</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.813	0.217
18	<i>Litoria brevipes</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.861	0.219
19	<i>Pleurodeles waltl</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.916	0.442
19	<i>Salamandra salamandra</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-1.643	0.535
19	<i>Lissotriton boscai</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-1.347	0.491
19	<i>Triturus marmoratus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-3.392	1.219
19	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-2.513	0.716
19	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.062	0.456
19	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.216	0.474
19	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.630	0.420
19	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.301	0.405
19	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.574	0.524
19	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-3.161	1.124
19	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-2.928	0.829
19	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-1.611	0.530
19	<i>Pleurodeles waltl</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.076	0.458
19	<i>Salamandra salamandra</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	2.192	0.640
19	<i>Lissotriton boscai</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.150	0.466
19	<i>Triturus marmoratus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.000	0.500
19	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	6.694	2.640
19	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.502	0.413
19	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.439	0.410
19	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.844	0.436
19	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.873	0.438
19	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.646	0.421
19	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.064	0.571
19	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.531	0.517
19	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.557	0.521
19	<i>Pleurodeles waltl</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.067	0.400
19	<i>Salamandra salamandra</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.558	0.416
19	<i>Lissotriton boscai</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.553	0.415
19	<i>Triturus marmoratus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.128	0.580
19	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.791	0.431
19	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.060	0.400
19	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.635	0.420
19	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.448	0.410
19	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.823	0.434

19	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-2.535	0.721
19	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.551	0.519
19	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.707	0.546
19	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.001	0.400
19	<i>Pleurodeles waltl</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-1.103	0.461
19	<i>Salamandra salamandra</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	0.621	0.419
19	<i>Lissotriton boscai</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	0.657	0.422
19	<i>Triturus marmoratus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-0.567	0.520
19	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-2.734	0.774
19	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-2.653	0.752
19	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-1.213	0.474
19	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-2.391	0.686
19	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	0.978	0.448
19	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-0.839	0.435
19	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	0.357	0.508
19	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-0.042	0.400
19	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-0.220	0.402
19	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-6.608	2.162
19	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-0.571	1.374
19	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-8.205	4.383
19	<i>Pleurodeles waltl</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-1.026	1.355
19	<i>Pleurodeles waltl</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-4.093	1.238
19	<i>Salamandra salamandra</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-3.034	0.860
19	<i>Lissotriton boscai</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-2.875	0.813
19	<i>Triturus marmoratus</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-2.724	0.964
19	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-5.076	1.688
19	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-8.663	4.152
19	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-20.757	21.943
19	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-5.748	2.052
19	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-11.922	7.506
19	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-67.847	230.559
19	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-3.969	1.485
19	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-3.699	1.084
19	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-7.099	2.920
20	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-9.058	0.901
20	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-7.483	0.640
21	<i>Plethodon glutinosus</i>	<i>Plethodon montanus</i>	Experimental	Behaviour (activity)	-0.409	0.102
21	<i>Plethodon glutinosus</i>	<i>Plethodon montanus</i>	Experimental	Behaviour (avoidance)	0.163	0.100
21	<i>Plethodon glutinosus</i>	<i>Plethodon montanus</i>	Experimental	Behaviour (avoidance)	0.310	0.101
22	<i>Eurycea nana</i>	<i>Lepomis auritus</i>	Experimental	Behaviour (activity)	-1.365	0.123
22	<i>Eurycea nana</i>	<i>Lepomis auritus</i>	Experimental	Behaviour (activity)	0.622	0.105
22	<i>Eurycea nana</i>	<i>Lepomis auritus</i>	Experimental	Physiology	0.486	0.103
22	<i>Eurycea nana</i>	<i>Lepomis auritus</i>	Experimental	Physiology	-0.986	0.112
23	<i>Eurycea nana</i>	<i>Lepomis auritus</i>	Experimental	Behaviour (activity)	-1.692	0.181
23	<i>Eurycea nana</i>	<i>Lepomis auritus</i>	Experimental	Behaviour (activity)	-0.247	0.134
23	<i>Eurycea nana</i>	<i>Lepomis gibbosus</i>	Experimental	Behaviour (activity)	-1.566	0.174
23	<i>Eurycea nana</i>	<i>Lepomis gibbosus</i>	Experimental	Behaviour (activity)	0.217	0.134
23	<i>Eurycea nana</i>	<i>Herichthys cyanoguttatum</i>	Experimental	Behaviour (activity)	-1.468	0.169
23	<i>Eurycea nana</i>	<i>Herichthys cyanoguttatum</i>	Experimental	Behaviour (activity)	0.388	0.136
24	<i>Eurycea sosorum</i>	<i>Lepomis auritus</i>	Experimental	Behaviour (activity)	-1.275	0.127

24	<i>Eurycea sosorum</i>	<i>Lepomis auritus</i>	Experimental	Behaviour (activity)	0.031	0.105
24	<i>Eurycea sosorum</i>	<i>Lepomis auritus</i>	Experimental	Behaviour (activity)	0.645	0.111
25	<i>Anaxyrus americanus</i>	<i>Microstegium vimineum</i>	Experimental	Fitness/performance	1.851	0.571
26	<i>Lithobates sylvaticus</i>	<i>Gambusia affinis</i>	Experimental	Development	-0.613	0.524
26	<i>Lithobates sylvaticus</i>	<i>Gambusia affinis</i>	Experimental	Development	-0.392	0.510
26	<i>Lithobates sylvaticus</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	0.050	0.500
26	<i>Lithobates sylvaticus</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-6.356	3.025
26	<i>Lithobates sylvaticus</i>	<i>Gambusia affinis</i>	Experimental	Growth/mass	0.121	0.501
26	<i>Lithobates sylvaticus</i>	<i>Gambusia affinis</i>	Experimental	Growth/mass	0.192	0.502
27	<i>Ambystoma annulatum</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	1.122	0.463
27	<i>Ambystoma annulatum</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-0.571	0.416
27	<i>Ambystoma annulatum</i>	<i>Pimephales promelas</i>	Experimental	Fitness/performance	-1.315	0.486
27	<i>Ambystoma annulatum</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	0.066	0.400
27	<i>Ambystoma annulatum</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-3.072	0.872
27	<i>Ambystoma annulatum</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-29.832	22.449
27	<i>Ambystoma annulatum</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-1.602	0.264
27	<i>Ambystoma annulatum</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-2.355	0.339
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Fitness/performance	0.172	0.100
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Fitness/performance	0.183	0.100
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Fitness/performance	1.284	0.121
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Fitness/performance	0.517	0.103
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Growth/mass	-0.664	0.106
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Growth/mass	-0.223	0.101
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Growth/mass	0.582	0.104
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Growth/mass	-0.244	0.101
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Growth/mass	-3.387	0.243
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Growth/mass	-1.053	0.114
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Growth/mass	-0.564	0.104
28	<i>Hyla versicolor</i>	<i>Pinus strobus</i>	Experimental	Growth/mass	-2.019	0.151
29	<i>Eurycea nana</i>	<i>Lepomis auritus</i>	Experimental	Behaviour (activity)	0.070	0.133
29	<i>Eurycea nana</i>	<i>Lepomis auritus</i>	Experimental	Behaviour (activity)	0.828	0.145
30	<i>Rana muscosa</i>	<i>Oncorhynchus mykiss</i>	Observational	Abundance/diversity	2.024	0.678
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	-1.166	0.067
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	-0.534	0.060
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	0.580	0.059
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	0.535	0.061
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	0.481	0.060
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	0.634	0.064
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	0.693	0.063
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (activity)	-1.214	0.068
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (activity)	-0.583	0.060
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (activity)	0.522	0.059
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (activity)	0.482	0.061
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (activity)	0.427	0.059
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (activity)	0.576	0.063
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (activity)	0.636	0.062
31	<i>Cryptobranchus bishopi</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	-0.426	0.195
31	<i>Cryptobranchus bishopi</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	0.991	0.214
31	<i>Cryptobranchus bishopi</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	1.151	0.212
31	<i>Cryptobranchus bishopi</i>	<i>Salmo trutta</i>	Experimental	Behaviour (activity)	-2.119	0.298

31	<i>Cryptobranchus bishopi</i>	<i>Salmo trutta</i>	Experimental	Behaviour (activity)	0.061	0.191
31	<i>Cryptobranchus bishopi</i>	<i>Salmo trutta</i>	Experimental	Behaviour (activity)	0.261	0.183
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	1.148	0.067
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	0.668	0.061
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.589	0.059
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.830	0.064
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.765	0.062
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.776	0.065
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-1.025	0.067
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	1.426	0.072
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	0.840	0.063
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.649	0.060
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.566	0.061
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.646	0.061
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.601	0.063
31	<i>Cryptobranchus alleganiensis</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.874	0.065
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	1.315	0.070
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	0.804	0.062
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.490	0.058
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.737	0.063
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.668	0.061
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.681	0.064
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.932	0.065
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	1.426	0.072
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	0.818	0.063
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.640	0.059
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.559	0.061
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.637	0.061
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.593	0.063
31	<i>Cryptobranchus alleganiensis</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.860	0.064
31	<i>Cryptobranchus bishopi</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	0.657	0.201
31	<i>Cryptobranchus bishopi</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.345	0.194
31	<i>Cryptobranchus bishopi</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.852	0.198
31	<i>Cryptobranchus bishopi</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	0.377	0.194
31	<i>Cryptobranchus bishopi</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-0.912	0.211
31	<i>Cryptobranchus bishopi</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	-1.397	0.226
31	<i>Cryptobranchus bishopi</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	1.181	0.224
31	<i>Cryptobranchus bishopi</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	0.129	0.191
31	<i>Cryptobranchus bishopi</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.366	0.185
31	<i>Cryptobranchus bishopi</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	1.383	0.236
31	<i>Cryptobranchus bishopi</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.053	0.191
31	<i>Cryptobranchus bishopi</i>	<i>Salmo trutta</i>	Experimental	Behaviour (avoidance)	-0.505	0.188
32	<i>Taricha torosa</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-6.128	1.898
32	<i>Taricha torosa</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-0.637	0.350
32	<i>Taricha torosa</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-4.662	1.239
32	<i>Taricha torosa</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-1.448	0.421
32	<i>Taricha torosa</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-1.592	0.439
32	<i>Taricha torosa</i>	<i>Procambarus clarkii</i>	Experimental	Fitness/performance	-7.215	2.502
32	<i>Taricha torosa</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-4.151	1.051
33	<i>Taricha torosa</i>	<i>Procambarus clarkii</i>	Experimental	Abundance/diversity	-1.472	0.424

33	<i>Taricha torosa</i>	<i>Procambarus clarkii</i>	Experimental	Abundance/diversity	-1.190	0.392
33	<i>Taricha torosa</i>	<i>Procambarus clarkii</i>	Experimental	Abundance/diversity	-1.901	0.484
34	<i>Rana iberica</i>	<i>Neovison vison</i>	Observational	Abundance/diversity	-0.475	0.078
35	<i>Litoria phyllochroa</i>	<i>Salmo trutta</i>	Experimental	Fitness/performance	-0.972	0.280
35	<i>Litoria spenceri</i>	<i>Salmo trutta</i>	Experimental	Fitness/performance	-1.570	0.327
35	<i>Litoria lesueuri</i>	<i>Salmo trutta</i>	Experimental	Fitness/performance	-0.832	0.272
35	<i>Limnodynastes peronii</i>	<i>Salmo trutta</i>	Experimental	Fitness/performance	0.863	0.273
35	<i>Litoria phyllochroa</i>	<i>Salmo trutta</i>	Experimental	Fitness/performance	-0.882	0.274
35	<i>Litoria spenceri</i>	<i>Salmo trutta</i>	Experimental	Fitness/performance	-1.570	0.327
35	<i>Litoria lesueuri</i>	<i>Salmo trutta</i>	Experimental	Fitness/performance	-0.832	0.272
35	<i>Limnodynastes peronii</i>	<i>Salmo trutta</i>	Experimental	Fitness/performance	0.123	0.250
35	<i>Litoria spenceri</i>	<i>Oncorhynchus mykiss</i>	Experimental	Fitness/performance	-2.803	0.991
35	<i>Litoria phyllochroa</i>	<i>Oncorhynchus mykiss</i>	Experimental	Fitness/performance	-2.522	0.898
36	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	0.089	0.138
36	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	0.055	0.138
36	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	-0.625	0.151
36	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-0.260	0.145
36	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	-1.119	0.154
36	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-0.971	0.149
37	<i>Litoria australis</i>	<i>Rhinella marina</i>	Experimental	Behaviour (activity)	0.501	0.413
37	<i>Litoria australis</i>	<i>Rhinella marina</i>	Experimental	Behaviour (activity)	0.479	0.411
37	<i>Litoria australis</i>	<i>Rhinella marina</i>	Experimental	Behaviour (activity)	0.691	0.424
37	<i>Litoria australis</i>	<i>Rhinella marina</i>	Experimental	Behaviour (activity)	0.538	0.414
37	<i>Litoria australis</i>	<i>Rhinella marina</i>	Experimental	Behaviour (activity)	0.689	0.424
37	<i>Litoria australis</i>	<i>Rhinella marina</i>	Experimental	Behaviour (activity)	-1.257	0.479
38	<i>Litoria dentata</i>	<i>Rhinella marina</i>	Experimental	Behaviour (avoidance)	-0.127	0.334
38	<i>Litoria freycineti</i>	<i>Rhinella marina</i>	Experimental	Behaviour (avoidance)	0.129	0.334
38	<i>Litoria infrafronata</i>	<i>Rhinella marina</i>	Experimental	Behaviour (avoidance)	-0.108	0.334
38	<i>Pseudophryne coriacea</i>	<i>Rhinella marina</i>	Experimental	Behaviour (avoidance)	-0.020	0.333
39	<i>Litoria aurea</i>	<i>Gambusia holbrooki</i>	Experimental	Behaviour (activity)	0.000	0.333
39	<i>Litoria aurea</i>	<i>Gambusia holbrooki</i>	Experimental	Behaviour (avoidance)	0.558	0.346
39	<i>Litoria aurea</i>	<i>Gambusia holbrooki</i>	Experimental	Development	-0.486	0.343
39	<i>Litoria aurea</i>	<i>Gambusia holbrooki</i>	Experimental	Growth/mass	-0.704	0.354
40	<i>Rana cascadae</i>	<i>Salvelinus fontinalis</i>	Experimental	Behaviour (activity)	-0.991	0.094
40	<i>Rana cascadae</i>	<i>Salvelinus fontinalis</i>	Experimental	Behaviour (activity)	-0.762	0.089
40	<i>Rana cascadae</i>	<i>Salvelinus fontinalis</i>	Experimental	Behaviour (activity)	-0.015	0.083
40	<i>Rana cascadae</i>	<i>Salvelinus fontinalis</i>	Experimental	Behaviour (avoidance)	1.146	0.097
41	<i>Anaxyrus americanus</i>	<i>Lonicera maackii</i>	Experimental	Behaviour (activity)	0.542	0.118
41	<i>Anaxyrus americanus</i>	<i>Lonicera maackii</i>	Experimental	Behaviour (activity)	0.512	0.108
41	<i>Anaxyrus americanus</i>	<i>Lonicera maackii</i>	Experimental	Behaviour (activity)	0.643	0.120
41	<i>Anaxyrus americanus</i>	<i>Lonicera maackii</i>	Experimental	Behaviour (activity)	0.408	0.107
41	<i>Anaxyrus americanus</i>	<i>Lonicera maackii</i>	Experimental	Behaviour (avoidance)	-0.670	0.121
41	<i>Anaxyrus americanus</i>	<i>Lonicera maackii</i>	Experimental	Behaviour (avoidance)	-0.462	0.108
42	<i>Ambystoma macrodactylum</i>	<i>Oncorhynchus mykiss</i>	Observational	Abundance/diversity	-0.684	0.111
42	<i>Rana luteiventris</i>	<i>Oncorhynchus mykiss</i>	Observational	Abundance/diversity	-0.505	0.109
42	<i>Pseudacris regilla</i>	<i>Oncorhynchus mykiss</i>	Observational	Abundance/diversity	-0.416	0.108
42	<i>Ambystoma macrodactylum</i>	<i>Oncorhynchus mykiss</i>	Observational	Abundance/diversity	-0.597	0.139
42	<i>Rana luteiventris</i>	<i>Oncorhynchus mykiss</i>	Observational	Abundance/diversity	-0.543	0.138
42	<i>Pseudacris regilla</i>	<i>Oncorhynchus mykiss</i>	Observational	Abundance/diversity	-0.384	0.136
42	<i>Anaxyrus boreas</i>	<i>Oncorhynchus mykiss</i>	Observational	Abundance/diversity	0.426	0.136

43	<i>Ambystoma gracile</i>	<i>Salvelinus fontinalis</i>	Observational	Abundance/diversity	-31.270	123.225
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	1.583	0.384
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	1.265	0.480
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	0.972	0.447
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Fitness/performance	0.826	0.323
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Fitness/performance	0.771	0.430
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Fitness/performance	-0.595	0.418
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	1.008	0.334
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	0.639	0.420
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	0.677	0.423
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Fitness/performance	0.278	0.303
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Fitness/performance	-0.085	0.400
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Fitness/performance	-0.014	0.400
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	2.247	0.468
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	1.774	0.557
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	2.072	0.615
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Fitness/performance	-0.248	0.302
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Fitness/performance	-0.611	0.419
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Fitness/performance	-0.602	0.418
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	0.722	0.317
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	1.597	0.528
44	<i>Pseudacris regilla</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	-0.729	0.427
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-0.256	0.302
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	0.234	0.403
44	<i>Pseudacris regilla</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-1.806	0.563
45	<i>Microhyla ornata</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-3.264	0.933
45	<i>Kaloula pulchra</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-1.460	0.507
45	<i>Fejervarya limnocharis</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-2.713	0.768
45	<i>Polypedates megacephalus</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-0.713	0.425
46	<i>Duttaphrynus melanostictus</i>	<i>Pomacea canaliculata</i>	Experimental	Fitness/performance	-1.890	0.579
46	<i>Microhyla fissipes</i>	<i>Pomacea canaliculata</i>	Experimental	Fitness/performance	-17.083	14.991
46	<i>Kaloula pulchra</i>	<i>Pomacea canaliculata</i>	Experimental	Fitness/performance	-2.140	0.629
46	<i>Fejervarya limnocharis</i>	<i>Pomacea canaliculata</i>	Experimental	Fitness/performance	-21.601	23.730
46	<i>Duttaphrynus melanostictus</i>	<i>Physella acuta</i>	Experimental	Fitness/performance	2.220	0.646
46	<i>Microhyla fissipes</i>	<i>Physella acuta</i>	Experimental	Fitness/performance	-0.957	0.446
46	<i>Kaloula pulchra</i>	<i>Physella acuta</i>	Experimental	Fitness/performance	-1.743	0.552
46	<i>Fejervarya limnocharis</i>	<i>Physella acuta</i>	Experimental	Fitness/performance	130.067	846.266
46	<i>Duttaphrynus melanostictus</i>	<i>Pomacea canaliculata</i>	Experimental	Fitness/performance	-2.393	0.686
46	<i>Microhyla fissipes</i>	<i>Pomacea canaliculata</i>	Experimental	Fitness/performance	-15.850	12.961
46	<i>Kaloula pulchra</i>	<i>Pomacea canaliculata</i>	Experimental	Fitness/performance	-6.412	2.455
46	<i>Fejervarya limnocharis</i>	<i>Pomacea canaliculata</i>	Experimental	Fitness/performance	-16.292	13.672
46	<i>Duttaphrynus melanostictus</i>	<i>Physella acuta</i>	Experimental	Fitness/performance	0.589	0.417
46	<i>Microhyla fissipes</i>	<i>Physella acuta</i>	Experimental	Fitness/performance	-0.971	0.447
46	<i>Kaloula pulchra</i>	<i>Physella acuta</i>	Experimental	Fitness/performance	-0.383	0.407
46	<i>Fejervarya limnocharis</i>	<i>Physella acuta</i>	Experimental	Fitness/performance	0.791	0.431
47	<i>Taricha torosa</i>	<i>Procambarus clarkii</i>	Observational	Abundance/diversity	-1.537	0.277
47	<i>Taricha torosa</i>	<i>Procambarus clarkii</i>	Observational	Abundance/diversity	-1.251	0.613
48	<i>Pseudacris regilla</i>	<i>Pacifastacus leniusculus</i>	Experimental	Behaviour (activity)	0.453	0.342
48	<i>Rana boylei</i>	<i>Pacifastacus leniusculus</i>	Experimental	Behaviour (activity)	0.482	0.343
48	<i>Pseudacris regilla</i>	<i>Pacifastacus leniusculus</i>	Experimental	Behaviour (activity)	1.302	0.404

48	<i>Rana boylei</i>	<i>Pacifastacus leniusculus</i>	Experimental	Behaviour (activity)	1.069	0.381
48	<i>Pseudacris regilla</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	-0.327	0.338
48	<i>Rana boylei</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	-0.863	0.364
49	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (activity)	-1.364	0.247
49	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (avoidance)	1.448	0.252
49	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	-0.578	0.694
50	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Development	2.725	1.286
50	<i>Rana aurora</i>	<i>Micropterus dolomieu</i>	Experimental	Development	0.300	0.674
50	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	-2.930	1.382
50	<i>Rana aurora</i>	<i>Micropterus dolomieu</i>	Experimental	Fitness/performance	0.445	0.683
50	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Growth/mass	-6.187	3.857
50	<i>Rana aurora</i>	<i>Micropterus dolomieu</i>	Experimental	Growth/mass	-0.365	0.678
51	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (activity)	-3.584	1.042
51	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (activity)	-6.297	2.383
51	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Development	1.450	0.505
51	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	-1.801	0.562
51	<i>Rana aurora</i>	<i>Lithobates catesbeianus</i>	Experimental	Growth/mass	-1.917	0.584
52	<i>Pelobates fuscus</i>	<i>Cyprinus carpio</i>	Experimental	Fitness/performance	-10.233	5.126
52	<i>Hyla arborea</i>	<i>Cyprinus carpio</i>	Experimental	Fitness/performance	-6.729	1.909
53	<i>Platyplectrum ornatum</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-2.568	0.608
53	<i>Platyplectrum ornatum</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-2.758	0.650
53	<i>Platyplectrum ornatum</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-5.243	1.479
54	<i>Rana draytonii</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (activity)	0.493	0.258
54	<i>Rana draytonii</i>	<i>Lithobates catesbeianus</i>	Experimental	Development	1.290	0.805
54	<i>Rana draytonii</i>	<i>Gambusia affinis</i>	Experimental	Development	1.405	0.831
54	<i>Rana draytonii</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	0.859	0.728
54	<i>Rana draytonii</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	-6.988	4.736
54	<i>Rana draytonii</i>	<i>Gambusia affinis</i>	Experimental	Growth/mass	-1.580	0.875
54	<i>Rana draytonii</i>	<i>Lithobates catesbeianus</i>	Experimental	Growth/mass	-0.562	0.693
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Development	1.211	0.237
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Development	1.403	0.249
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Development	1.599	0.264
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Development	-1.915	0.292
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Development	-1.897	0.290
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Development	-1.715	0.274
55	<i>Pseudacris fouquettei</i>	<i>Triadica sebifera</i>	Experimental	Fitness/performance	-13.629	4.844
55	<i>Pseudacris fouquettei</i>	<i>Triadica sebifera</i>	Experimental	Fitness/performance	-30.925	24.109
55	<i>Pseudacris fouquettei</i>	<i>Triadica sebifera</i>	Experimental	Fitness/performance	-14.992	5.819
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Fitness/performance	-3.328	0.477
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Fitness/performance	-3.126	0.444
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Fitness/performance	-3.935	0.587
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Fitness/performance	-0.651	0.211
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Fitness/performance	-0.488	0.206
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Fitness/performance	-1.096	0.230
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	-0.681	0.212
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	-0.466	0.205
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	-0.839	0.218
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	-3.097	0.440
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	-2.303	0.333
55	<i>Anaxyrus terrestris</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	-3.149	0.448

55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	5.426	0.936
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	4.140	0.629
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	7.061	1.447
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	0.909	0.221
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	0.715	0.213
55	<i>Hyla cinerea</i>	<i>Triadica sebifera</i>	Experimental	Growth/mass	0.932	0.222
56	8 species	<i>Lithobates catesbeianus</i>	Observational	Abundance/diversity	-0.487	0.069
56	8 species	<i>Lithobates catesbeianus</i>	Observational	Abundance/diversity	-0.688	0.071
57	<i>Bufo bufo</i>	<i>Xenopus laevis</i>	Observational	Abundance/diversity	-0.250	0.157
58	<i>Anaxyrus terrestris</i>	<i>Solenopsis invicta</i>	Experimental	Behaviour (activity)	-0.802	0.120
58	<i>Anaxyrus terrestris</i>	<i>Solenopsis invicta</i>	Experimental	Behaviour (activity)	0.260	0.112
58	<i>Anaxyrus terrestris</i>	<i>Solenopsis invicta</i>	Experimental	Behaviour (activity)	0.567	0.116
59	13 species	<i>Pinus elliottii</i>	Observational	Abundance/diversity	-7.633	3.313
59	13 species	<i>Pinus elliottii</i>	Observational	Abundance/diversity	-7.859	3.488
59	13 species	<i>Pinus elliottii</i>	Observational	Abundance/diversity	-2.460	0.703
59	13 species	<i>Pinus elliottii</i>	Observational	Abundance/diversity	-5.978	2.187
60	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Development	-1.406	0.083
60	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Development	-0.841	0.073
60	<i>Hyla versicolor</i>	<i>Lythrum salicaria</i>	Experimental	Development	0.834	0.072
60	<i>Hyla versicolor</i>	<i>Lythrum salicaria</i>	Experimental	Development	0.417	0.068
60	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Fitness/performance	-1.791	0.093
60	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Fitness/performance	-1.891	0.096
60	<i>Hyla versicolor</i>	<i>Lythrum salicaria</i>	Experimental	Fitness/performance	-0.168	0.067
60	<i>Hyla versicolor</i>	<i>Lythrum salicaria</i>	Experimental	Fitness/performance	-0.007	0.067
61	<i>Bufo bufo</i>	<i>Astacus leptodactylus</i>	Experimental	Behaviour (activity)	-1.081	0.382
61	<i>Bufo bufo</i>	<i>Astacus leptodactylus</i>	Experimental	Behaviour (activity)	2.008	0.501
61	<i>Rana temporaria</i>	<i>Astacus leptodactylus</i>	Experimental	Behaviour (activity)	-2.746	0.647
61	<i>Rana temporaria</i>	<i>Astacus leptodactylus</i>	Experimental	Behaviour (activity)	-1.021	0.377
62	<i>Ambystoma maculatum</i>	<i>Phragmites australis</i>	Experimental	Development	0.048	0.067
62	<i>Ambystoma maculatum</i>	<i>Phragmites australis</i>	Experimental	Development	-0.243	0.067
62	<i>Ambystoma maculatum</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.151	0.067
62	<i>Ambystoma maculatum</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.590	0.070
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	1.044	0.420
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	0.442	0.635
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	-1.040	0.221
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	-1.628	0.356
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	-0.436	0.191
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	0.780	0.210
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	0.218	0.251
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	0.091	0.171
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	0.557	0.216
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	0.830	0.659
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	0.730	0.222
63	<i>Anaxyrus americanus</i>	<i>Acer platanoides</i>	Experimental	Growth/mass	0.314	0.190
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	2.569	0.456
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	1.514	0.613
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	-1.181	0.149
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	-2.355	0.309
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	-0.346	0.120
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	1.383	0.157

63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	0.527	0.186
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	0.330	0.102
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	0.980	0.155
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	2.438	0.704
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	1.319	0.168
63	<i>Anaxyrus americanus</i>	<i>Alnus glutinosa</i>	Experimental	Growth/mass	0.604	0.123
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	0.815	0.403
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	-0.081	0.625
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	-2.000	0.287
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	-2.659	0.504
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	-0.958	0.207
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	0.307	0.199
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	-0.159	0.251
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	-0.375	0.173
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	0.174	0.209
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	0.597	0.643
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	0.286	0.210
63	<i>Anaxyrus americanus</i>	<i>Fallopia bohemica</i>	Experimental	Growth/mass	-0.079	0.188
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	1.316	0.326
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	0.826	0.557
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	-0.320	0.116
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	-0.966	0.202
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	0.039	0.106
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	1.163	0.133
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	0.638	0.175
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	0.546	0.092
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	0.983	0.141
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	1.154	0.570
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	1.124	0.145
63	<i>Anaxyrus americanus</i>	<i>Lonicera spp.</i>	Experimental	Growth/mass	0.740	0.113
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-0.883	0.815
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-0.857	1.092
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-3.408	0.934
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-3.112	1.181
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-1.988	0.672
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-1.201	0.616
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-0.962	0.671
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-1.544	0.595
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-0.885	0.611
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-0.630	1.050
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-1.088	0.626
63	<i>Anaxyrus americanus</i>	<i>Lythrum salicaria</i>	Experimental	Growth/mass	-1.088	0.595
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.816	0.321
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.281	0.558
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	-1.094	0.146
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	-1.720	0.258
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	-0.574	0.123
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.593	0.132
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.119	0.181
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	-0.042	0.101

63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.456	0.142
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.650	0.566
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.569	0.144
63	<i>Anaxyrus americanus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.206	0.119
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	0.165	0.376
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-0.265	0.629
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-1.714	0.263
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-2.058	0.409
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-1.052	0.211
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-0.044	0.196
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-0.331	0.253
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-0.578	0.176
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-0.076	0.208
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	0.036	0.625
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-0.041	0.208
63	<i>Anaxyrus americanus</i>	<i>Typha angustifolia</i>	Experimental	Growth/mass	-0.289	0.189
64	<i>Lithobates clamitans</i>	<i>Phragmites australis</i>	Observational	Abundance/diversity	0.187	0.080
65	<i>Pseudacris regilla</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (activity)	0.508	0.103
65	<i>Pseudacris regilla</i>	<i>Lithobates catesbeianus</i>	Experimental	Growth/mass	-2.591	0.920
65	<i>Rana luteiventris</i>	<i>Lithobates catesbeianus</i>	Experimental	Growth/mass	0.908	0.552
66	<i>Ambystoma macrodactylum</i>	<i>Carassius auratus</i>	Experimental	Fitness/performance	-1.792	0.701
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (body)	0.271	0.101
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (body)	-0.092	0.100
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (body)	-0.113	0.100
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (body)	0.078	0.100
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (body)	0.419	0.102
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (body)	0.247	0.101
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (tail)	0.434	0.102
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (tail)	0.930	0.111
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (tail)	-0.009	0.100
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (tail)	-0.232	0.101
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (tail)	-0.814	0.108
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (tail)	0.138	0.100
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (tail)	0.851	0.109
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (tail)	-0.911	0.110
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (tail)	-0.416	0.102
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Experimental	Morphology (tail)	-0.609	0.105
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Observational	Morphology (body)	0.000	0.450
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Observational	Morphology (body)	-2.527	0.805
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Observational	Morphology (body)	-2.291	0.742
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Observational	Morphology (tail)	4.035	1.355
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Observational	Morphology (tail)	6.240	2.613
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Observational	Morphology (tail)	-1.067	0.513
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Observational	Morphology (tail)	-0.554	0.467
67	<i>Alytes muletensis</i>	<i>Natrix maura</i>	Observational	Morphology (tail)	-2.483	0.793
68	<i>Litoria aurea</i>	<i>Gambusia holbrooki</i>	Experimental	Fitness/performance	-2.453	0.250
69	<i>Ambystoma macrodactylum</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (avoidance)	0.098	0.100
69	<i>Ambystoma macrodactylum</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (avoidance)	-0.449	0.103
69	<i>Pseudacris regilla</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (avoidance)	-0.424	0.102
69	<i>Pseudacris regilla</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (avoidance)	-0.506	0.103

69	<i>Rana luteiventris</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (avoidance)	0.992	0.112
69	<i>Rana luteiventris</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (avoidance)	0.586	0.104
69	<i>Taricha granulosa</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (avoidance)	0.337	0.101
69	<i>Taricha granulosa</i>	<i>Lithobates catesbeianus</i>	Experimental	Behaviour (avoidance)	0.246	0.101
70	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Physiology	5.777	1.477
70	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Physiology	6.487	1.788
70	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Physiology	6.876	1.974
70	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Physiology	2.148	0.451
70	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Physiology	2.772	0.560
70	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Physiology	1.157	0.334
71	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-49.956	312.956
71	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-46.931	276.314
71	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-11.637	17.927
71	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	-1.544	1.298
71	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	-4.517	3.551
71	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Physiology	38.244	183.828
71	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Physiology	21.461	58.571
71	<i>Cornufer vitianus</i>	<i>Rhinella marina</i>	Experimental	Physiology	-193.719	4691.881
72	<i>Rhinella schneideri</i>	<i>Oreochromis niloticus</i>	Experimental	Fitness/performance	13.709	4.082
72	<i>Physalaemus nattereri</i>	<i>Oreochromis niloticus</i>	Experimental	Fitness/performance	-1.301	0.202
73	<i>Pleurodeles waltl</i>	<i>Procambarus clarkii</i>	Observational	Abundance/diversity	-0.498	0.133
73	<i>Triturus marmoratus</i>	<i>Procambarus clarkii</i>	Observational	Abundance/diversity	-0.199	0.130
73	<i>Lissotriton boscai</i>	<i>Procambarus clarkii</i>	Observational	Abundance/diversity	0.107	0.129
74	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Development	-4.258	1.307
74	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Development	-0.391	0.408
74	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Development	-1.981	0.596
74	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Development	-0.640	0.420
74	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Development	-2.315	0.668
74	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Development	-1.229	0.475
74	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Development	-1.723	0.549
74	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Development	-1.089	0.459
74	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Development	-0.231	0.403
74	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Development	-3.061	0.868
74	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Development	-4.069	1.228
74	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Development	-1.601	0.528
74	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Development	0.177	0.402
74	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Development	0.616	0.419
74	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Development	-1.330	0.488
74	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Development	-1.189	0.471
74	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Development	0.098	0.400
74	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Development	-0.239	0.403
74	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	2.993	0.848
74	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	0.238	0.403
74	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	0.287	0.404
74	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.139	0.401
74	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.084	0.400
74	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.362	0.407
74	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	2.904	0.822
74	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	0.622	0.419
74	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	1.139	0.465

74	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	2.287	0.662
74	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	2.731	0.773
74	<i>Pelobates cultripipes</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	0.735	0.427
74	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-2.802	0.793
74	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	1.616	0.531
74	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	0.578	0.417
74	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	1.168	0.468
74	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.408	0.408
74	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.148	0.401
74	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	2.490	0.710
74	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.166	0.401
74	<i>Pelobates cultripipes</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.302	0.405
74	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-1.089	0.459
74	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-2.845	0.805
74	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-1.449	0.505
74	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	1.303	0.485
74	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.398	0.408
74	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	1.014	0.451
74	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	0.773	0.430
74	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.475	0.411
74	<i>Pelobates cultripipes</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	0.203	0.402
74	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-3.316	0.950
74	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	2.684	0.760
74	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.419	0.409
74	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	0.277	0.404
74	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-2.011	0.602
74	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Growth/mass	-0.142	0.401
74	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-0.494	0.412
74	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	0.732	0.427
74	<i>Pelobates cultripipes</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	0.277	0.404
74	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	0.759	0.429
74	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	1.158	0.467
74	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	0.621	0.419
74	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-0.361	0.407
74	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-0.565	0.416
74	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	1.087	0.459
74	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-9.415	4.833
74	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-5.100	1.700
74	<i>Pelobates cultripipes</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-1.896	0.580
74	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-4.340	1.342
74	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-0.087	0.400
74	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	0.006	0.400
74	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-2.520	0.717
74	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-4.346	1.345
74	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-1.890	0.579
75	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.350	0.406
75	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.392	0.408
75	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	0.143	0.401
75	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-0.517	0.413
75	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	2.366	0.680

75	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	0.539	0.415
76	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.407	0.408
76	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.158	0.467
76	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-6.300	2.384
76	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.800	0.562
76	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.556	0.415
76	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.367	0.407
76	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-1.620	0.531
76	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.711	0.425
76	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-1.721	0.548
76	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.000	0.400
76	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.297	0.404
76	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.404	0.408
76	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.347	0.406
76	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.477	0.411
76	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.595	0.418
76	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	2.475	0.706
76	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.280	0.404
76	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.145	0.401
76	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-2.393	0.686
76	<i>Alytes cisternasii</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	0.696	0.424
76	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-0.562	0.416
76	<i>Bufo bufo</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	1.171	0.469
76	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-1.118	0.462
76	<i>Discoglossus galganoi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	0.256	0.403
76	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-0.153	0.401
76	<i>Hyla meridionalis</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	0.079	0.400
76	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-0.848	0.436
76	<i>Hyla arborea</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-0.117	0.401
76	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	0.316	0.405
76	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	1.045	0.455
76	<i>Pelophylax perezi</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-0.676	0.423
76	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	0.145	0.401
76	<i>Pelodytes ibericus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	2.092	0.619
76	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	-2.135	0.628
76	<i>Epidalea calamita</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (avoidance)	1.493	0.511
77	<i>Rana temporaria</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	-3.328	0.954
77	<i>Rana temporaria</i>	<i>Pacifastacus leniusculus</i>	Experimental	Behaviour (activity)	-0.997	0.450
77	<i>Bufo bufo</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (activity)	-1.585	0.526
77	<i>Bufo bufo</i>	<i>Pacifastacus leniusculus</i>	Experimental	Behaviour (activity)	-3.731	1.096
77	<i>Rana temporaria</i>	<i>Oncorhynchus mykiss</i>	Experimental	Fitness/performance	-0.391	0.408
77	<i>Rana temporaria</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	-3.116	0.886
77	<i>Bufo bufo</i>	<i>Oncorhynchus mykiss</i>	Experimental	Fitness/performance	-0.263	0.403
77	<i>Bufo bufo</i>	<i>Pacifastacus leniusculus</i>	Experimental	Fitness/performance	-12.156	7.789
77	<i>Rana temporaria</i>	<i>Oncorhynchus mykiss</i>	Experimental	Growth/mass	0.452	0.410
77	<i>Rana temporaria</i>	<i>Pacifastacus leniusculus</i>	Experimental	Growth/mass	3.921	1.169
77	<i>Bufo bufo</i>	<i>Oncorhynchus mykiss</i>	Experimental	Growth/mass	0.858	0.437
77	<i>Bufo bufo</i>	<i>Pacifastacus leniusculus</i>	Experimental	Growth/mass	0.232	0.403
78	<i>Rana temporaria</i>	<i>Pacifastacus leniusculus</i>	Experimental	Abundance/diversity	0.377	0.407
78	<i>Rana temporaria</i>	<i>Oncorhynchus mykiss</i>	Experimental	Abundance/diversity	-1.185	0.470

78	<i>Rana temporaria</i>	<i>Pacifastacus leniusculus</i>	Experimental	Growth/mass	0.229	0.403
78	<i>Rana temporaria</i>	<i>Oncorhynchus mykiss</i>	Experimental	Growth/mass	-2.820	0.798
79	<i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Experimental	Development	-0.143	0.040
79	<i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Experimental	Growth/mass	-0.153	0.040
79	<i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Experimental	Growth/mass	-0.609	0.042
79	<i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Experimental	Growth/mass	-0.020	0.040
79	<i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Experimental	Morphology (body)	-0.192	0.040
79	<i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Experimental	Morphology (body)	-0.149	0.040
79	<i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Experimental	Morphology (body)	-0.664	0.042
79	<i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Experimental	Morphology (body)	-0.086	0.040
79	<i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Experimental	Morphology (body)	-0.519	0.041
79	<i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Experimental	Morphology (body)	-0.344	0.041
80	<i>Bufo bufo</i>	<i>Salmo trutta</i>	Observational	Abundance/diversity	0.028	0.067
80	<i>Alytes obstetricans</i>	<i>Salmo trutta</i>	Observational	Abundance/diversity	-0.530	0.069
80	<i>Rana temporaria</i>	<i>Salmo trutta</i>	Observational	Abundance/diversity	-0.775	0.072
80	<i>Ichthyosaura alpestris</i> , <i>Triturus marmoratus</i> , <i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Observational	Abundance/diversity	-0.912	0.074
80	<i>Ichthyosaura alpestris</i> , <i>Triturus marmoratus</i> , <i>Lissotriton helveticus</i>	<i>Salmo trutta</i>	Observational	Abundance/diversity	-0.540	0.069
81	<i>Rana boylei</i>	<i>Micropterus dolomieu</i>	Experimental	Behaviour (activity)	0.071	0.250
81	<i>Rana boylei</i>	<i>Micropterus dolomieu</i>	Experimental	Behaviour (activity)	0.463	0.257
81	<i>Rana boylei</i>	<i>Micropterus dolomieu</i>	Experimental	Behaviour (activity)	1.307	0.303
82	<i>Rana aurora aurora</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.925	0.277
82	<i>Rana aurora aurora</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.149	0.326
82	<i>Rana aurora aurora</i>	<i>Lepomis macrochirus</i>	Experimental	Behaviour (activity)	-1.262	0.300
82	<i>Rana aurora aurora</i>	<i>Lepomis macrochirus</i>	Experimental	Behaviour (activity)	0.537	0.336
82	<i>Pseudacris regilla</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.153	0.251
82	<i>Pseudacris regilla</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.697	0.265
82	<i>Pseudacris regilla</i>	<i>Lepomis macrochirus</i>	Experimental	Behaviour (activity)	-0.608	0.262
82	<i>Pseudacris regilla</i>	<i>Lepomis macrochirus</i>	Experimental	Behaviour (activity)	1.064	0.285
83	<i>Ambystoma macrodactylum</i>	<i>Pimephales promelas</i>	Experimental	Behaviour (avoidance)	0.718	0.177
83	<i>Ambystoma macrodactylum</i>	<i>Oncorhynchus mykiss</i>	Experimental	Behaviour (avoidance)	0.083	0.167
83	<i>Ambystoma macrodactylum</i>	<i>Pimephales promelas</i>	Experimental	Fitness/performance	-2.162	0.792
83	<i>Ambystoma macrodactylum</i>	<i>Oncorhynchus mykiss</i>	Experimental	Fitness/performance	-1.969	0.742
83	<i>Ambystoma macrodactylum</i>	<i>Pimephales promelas</i>	Experimental	Fitness/performance	-2.954	1.045
83	<i>Ambystoma macrodactylum</i>	<i>Oncorhynchus mykiss</i>	Experimental	Fitness/performance	-2.175	0.796
83	<i>Ambystoma macrodactylum</i>	<i>Pimephales promelas</i>	Experimental	Fitness/performance	-3.107	1.555
83	<i>Ambystoma macrodactylum</i>	<i>Oncorhynchus mykiss</i>	Experimental	Fitness/performance	-11.938	12.626
83	<i>Ambystoma macrodactylum</i>	<i>Pimephales promelas</i>	Experimental	Growth/mass	-2.159	0.791
83	<i>Ambystoma macrodactylum</i>	<i>Oncorhynchus mykiss</i>	Experimental	Growth/mass	-0.994	0.562
83	<i>Ambystoma macrodactylum</i>	<i>Pimephales promelas</i>	Experimental	Growth/mass	-2.530	0.900
83	<i>Ambystoma macrodactylum</i>	<i>Oncorhynchus mykiss</i>	Experimental	Growth/mass	-1.271	0.601
84	<i>Pseudacris regilla</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-0.319	0.253
85	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	0.629	0.700
85	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	0.817	0.722
86	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	0.059	0.133
86	<i>Pelobates cultripes</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	1.515	0.172
87	<i>Pelophylax perezi</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	-0.120	0.134
87	<i>Pelophylax perezi</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	-0.098	0.133

87	<i>Pelophylax perezi</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	1.823	0.189
87	<i>Pelophylax perezi</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	1.237	0.159
87	<i>Pelophylax perezi</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	1.852	0.191
87	<i>Pelophylax perezi</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	1.262	0.160
87	<i>Pelobates cultripes</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	-0.260	0.134
87	<i>Pelobates cultripes</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	-0.306	0.135
87	<i>Pelobates cultripes</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	1.106	0.154
87	<i>Pelobates cultripes</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	0.793	0.144
87	<i>Pelobates cultripes</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	1.138	0.155
87	<i>Pelobates cultripes</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	0.799	0.144
87	<i>Epidalea calamita</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	-0.458	0.137
87	<i>Epidalea calamita</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	-0.257	0.134
87	<i>Epidalea calamita</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	-0.371	0.136
87	<i>Epidalea calamita</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	-0.293	0.135
87	<i>Epidalea calamita</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	-0.094	0.133
87	<i>Epidalea calamita</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	-0.048	0.133
87	<i>Hyla arborea</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	-0.177	0.134
87	<i>Hyla arborea</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	-0.222	0.134
87	<i>Hyla arborea</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	0.799	0.144
87	<i>Hyla arborea</i>	<i>Trachemys scripta</i>	Experimental	Behaviour (activity)	1.077	0.153
87	<i>Hyla arborea</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	0.747	0.143
87	<i>Hyla arborea</i>	<i>Graptemys pseudogeographica</i>	Experimental	Behaviour (activity)	1.015	0.151
88	<i>Pseudacris regilla</i>	<i>Lithobates catesbeianus</i>	Experimental	Development	-3.027	0.858
88	<i>Pseudacris regilla</i>	<i>Gambusia affinis</i>	Experimental	Development	-1.611	0.530
88	<i>Anaxyrus boreas</i>	<i>Lithobates catesbeianus</i>	Experimental	Development	-2.315	0.668
88	<i>Anaxyrus boreas</i>	<i>Gambusia affinis</i>	Experimental	Development	1.525	0.516
88	<i>Pseudacris regilla</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	-0.664	0.422
88	<i>Pseudacris regilla</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-11.068	6.525
88	<i>Anaxyrus boreas</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	0.172	0.401
88	<i>Anaxyrus boreas</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-0.482	0.412
88	<i>Taricha torosa</i>	<i>Lithobates catesbeianus</i>	Experimental	Fitness/performance	0.406	0.408
88	<i>Taricha torosa</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-6.209	2.328
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Behaviour (activity)	-1.927	0.586
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Behaviour (activity)	1.641	0.535
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	-1.038	0.454
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Behaviour (activity)	3.695	1.083
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	0.928	0.443
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	0.124	0.401
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	2.193	0.641
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	1.331	0.489
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	-3.338	0.957
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	-2.450	0.700
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-5.331	1.821
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-4.061	1.225
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	1.400	0.498

89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	-0.793	0.431
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	0.865	0.437
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-1.029	0.453
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	0.326	0.405
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	1.977	0.595
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	2.029	0.606
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	3.681	1.077
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	0.875	0.438
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	1.696	0.544
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	1.573	0.524
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	2.307	0.666
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	1.448	0.505
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	4.431	1.382
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	1.902	0.581
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	4.962	1.631
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	-0.083	0.400
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	2.025	0.605
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	-1.060	0.456
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	1.521	0.516
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	0.116	0.401
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (body)	2.125	0.626
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	0.052	0.400
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (body)	1.984	0.597
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (tail)	-0.572	0.416
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (tail)	0.330	0.405
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	-2.167	0.635
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	-1.365	0.493
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (tail)	1.474	0.509
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (tail)	-4.912	1.606
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	2.069	0.614
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	-3.405	0.980
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (tail)	-0.158	0.401
89	<i>Pelodytes punctatus</i>	<i>Gambusia holbrooki</i>	Experimental	Morphology (tail)	-1.283	0.482
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	-0.381	0.407
89	<i>Pelodytes punctatus</i>	<i>Procambarus clarkii</i>	Experimental	Morphology (tail)	-1.528	0.517
90	<i>Epidalea calamita</i>	<i>Discoglossus pictus</i>	Experimental	Behaviour (activity)	-4.586	1.814
90	<i>Pelodytes punctatus</i>	<i>Discoglossus pictus</i>	Experimental	Behaviour (activity)	2.066	0.767
90	<i>Epidalea calamita</i>	<i>Discoglossus pictus</i>	Experimental	Development	1.403	0.623
90	<i>Pelodytes punctatus</i>	<i>Discoglossus pictus</i>	Experimental	Development	-0.511	0.516
90	<i>Epidalea calamita</i>	<i>Discoglossus pictus</i>	Experimental	Fitness/performance	-3.900	1.451
90	<i>Pelodytes punctatus</i>	<i>Discoglossus pictus</i>	Experimental	Fitness/performance	-0.904	0.551
90	<i>Epidalea calamita</i>	<i>Discoglossus pictus</i>	Experimental	Growth/mass	-5.711	2.538
90	<i>Pelodytes punctatus</i>	<i>Discoglossus pictus</i>	Experimental	Growth/mass	-0.655	0.527
90	<i>Epidalea calamita</i>	<i>Discoglossus pictus</i>	Experimental	Growth/mass	-2.425	0.867
90	<i>Pelodytes punctatus</i>	<i>Discoglossus pictus</i>	Experimental	Growth/mass	0.081	0.500
91	<i>Plethodon glutinosus</i>	<i>Plethodon jordani</i>	Experimental	Behaviour (activity)	1.203	0.343
91	<i>Plethodon glutinosus</i>	<i>Plethodon jordani</i>	Experimental	Behaviour (activity)	0.548	0.302
92	<i>Anaxyrus americanus</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	1.816	0.941
92	<i>Lithobates palustris</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	-0.004	0.667
92	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	0.241	0.672

92	<i>Hyla chrysoscelis</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	0.516	0.344
93	<i>Lithobates catesbeianus</i>	<i>Phragmites australis</i>	Experimental	Development	0.353	0.041
93	<i>Lithobates catesbeianus</i>	<i>Phragmites australis</i>	Experimental	Development	0.583	0.042
93	<i>Lithobates catesbeianus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	1.330	0.049
93	<i>Lithobates catesbeianus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	0.400	0.041
93	<i>Lithobates catesbeianus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	1.111	0.046
93	<i>Lithobates catesbeianus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	0.531	0.041
94	<i>Lithobates sphenoccephalus</i>	<i>Procambarus nigrocinctu</i>	Experimental	Fitness/performance	-4.250	0.434
95	<i>Rana temporaria</i>	<i>Neovison vison</i>	Observational	Abundance/diversity	-0.669	0.048
96	<i>Salamandra infraimmaculata</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-5.332	1.138
96	<i>Salamandra infraimmaculata</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-1.787	0.350
96	<i>Salamandra infraimmaculata</i>	<i>Gambusia affinis</i>	Experimental	Growth/mass	-1.457	0.316
96	<i>Salamandra infraimmaculata</i>	<i>Gambusia affinis</i>	Experimental	Morphology (tail)	-1.570	0.327
96	<i>Salamandra infraimmaculata</i>	<i>Gambusia affinis</i>	Observational	Morphology (tail)	-3.404	0.398
97	<i>Lithobates yavapaiensis</i>	<i>Lepomis cyanellus</i>	Experimental	Behaviour (activity)	0.427	0.205
98	<i>Anaxyrus terrestris</i>	<i>Rhinella marina</i>	Experimental	Development	0.000	0.125
98	<i>Anaxyrus terrestris</i>	<i>Osteopilus septentrionalis</i>	Experimental	Development	-1.814	0.176
98	<i>Anaxyrus terrestris</i>	<i>Rhinella marina</i>	Experimental	Development	-0.157	0.125
98	<i>Anaxyrus terrestris</i>	<i>Osteopilus septentrionalis</i>	Experimental	Development	1.407	0.156
98	<i>Hyla cinerea</i>	<i>Rhinella marina</i>	Experimental	Development	-0.764	0.134
98	<i>Hyla cinerea</i>	<i>Osteopilus septentrionalis</i>	Experimental	Development	-3.945	0.368
98	<i>Hyla cinerea</i>	<i>Rhinella marina</i>	Experimental	Development	-0.614	0.131
98	<i>Hyla cinerea</i>	<i>Osteopilus septentrionalis</i>	Experimental	Development	1.635	0.167
98	<i>Anaxyrus terrestris</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	-0.335	0.127
98	<i>Anaxyrus terrestris</i>	<i>Osteopilus septentrionalis</i>	Experimental	Growth/mass	-1.381	0.155
98	<i>Anaxyrus terrestris</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	0.000	0.125
98	<i>Anaxyrus terrestris</i>	<i>Osteopilus septentrionalis</i>	Experimental	Growth/mass	-7.072	0.907
98	<i>Hyla cinerea</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	-0.713	0.133
98	<i>Hyla cinerea</i>	<i>Osteopilus septentrionalis</i>	Experimental	Growth/mass	-3.493	0.316
98	<i>Hyla cinerea</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	1.603	0.165
98	<i>Hyla cinerea</i>	<i>Osteopilus septentrionalis</i>	Experimental	Growth/mass	1.159	0.146
99	<i>Anaxyrus terrestris</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	0.831	0.435
99	<i>Anaxyrus terrestris</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-2.702	0.765
99	<i>Gastrophryne carolinensis</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.622	0.419
99	<i>Gastrophryne carolinensis</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-0.569	0.416
99	<i>Hyla squirella</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.773	0.430
99	<i>Hyla squirella</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-1.311	0.486
99	<i>Lithobates sphenoccephalus</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	0.353	0.406
99	<i>Lithobates sphenoccephalus</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-0.641	0.421
99	<i>Anaxyrus terrestris</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	0.785	0.431
99	<i>Anaxyrus terrestris</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-2.642	0.749
99	<i>Anaxyrus terrestris</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	-0.599	0.418
99	<i>Anaxyrus terrestris</i>	<i>Osteopilus septentrionalis</i>	Experimental	Growth/mass	-1.796	0.561
100	<i>Lithobates clamitans</i>	<i>Gambusia affinis</i>	Experimental	Behaviour (activity)	-0.843	0.084
100	<i>Lithobates clamitans</i>	<i>Gambusia affinis</i>	Experimental	Behaviour (activity)	-0.705	0.076
100	<i>Lithobates clamitans</i>	<i>Gambusia affinis</i>	Experimental	Behaviour (avoidance)	0.645	0.081
100	<i>Lithobates clamitans</i>	<i>Gambusia affinis</i>	Experimental	Behaviour (avoidance)	0.448	0.073
101	<i>Anaxyrus americanus</i>	<i>Gambusia affinis</i>	Experimental	Behaviour (activity)	-0.414	0.204
101	<i>Lithobates catesbeianus</i>	<i>Gambusia affinis</i>	Experimental	Behaviour (activity)	0.121	0.067
101	<i>Anaxyrus americanus</i>	<i>Gambusia affinis</i>	Experimental	Behaviour (avoidance)	0.273	0.202

101	<i>Lithobates catesbeianus</i>	<i>Gambusia affinis</i>	Experimental	Behaviour (avoidance)	-0.145	0.067
102	<i>Anaxyrus americanus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (activity)	0.056	0.138
102	<i>Anaxyrus americanus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (activity)	1.223	0.178
102	<i>Anaxyrus americanus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (activity)	0.525	0.163
102	<i>Lithobates catesbeianus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (activity)	-0.437	0.152
102	<i>Lithobates catesbeianus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (activity)	0.222	0.156
102	<i>Lithobates catesbeianus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (activity)	-0.045	0.148
102	<i>Lithobates clamitans</i>	<i>Carassius auratus</i>	Experimental	Behaviour (activity)	-0.907	0.152
102	<i>Lithobates clamitans</i>	<i>Carassius auratus</i>	Experimental	Behaviour (activity)	-0.584	0.156
102	<i>Anaxyrus americanus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	-0.144	0.138
102	<i>Anaxyrus americanus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	-0.146	0.150
102	<i>Anaxyrus americanus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	-0.495	0.162
102	<i>Lithobates catesbeianus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	-0.797	0.160
102	<i>Lithobates catesbeianus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	0.057	0.155
102	<i>Lithobates catesbeianus</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	0.711	0.158
102	<i>Lithobates clamitans</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	-0.013	0.138
102	<i>Lithobates clamitans</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	0.024	0.150
103	<i>Anaxyrus americanus</i>	<i>Gambusia affinis</i>	Experimental	Development	0.574	0.347
103	<i>Anaxyrus americanus</i>	<i>Gambusia affinis</i>	Experimental	Fitness/performance	-0.003	0.333
103	<i>Anaxyrus americanus</i>	<i>Gambusia affinis</i>	Experimental	Growth/mass	-0.975	0.373
103	<i>Anaxyrus americanus</i>	<i>Gambusia affinis</i>	Experimental	Growth/mass	0.268	0.336
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Development	0.458	0.410
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Development	-0.878	0.439
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Development	-0.576	0.417
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Development	-0.383	0.407
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Development	-1.158	0.467
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Development	-1.507	0.514
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Development	-0.415	0.409
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Development	-0.409	0.408
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Development	0.489	0.412
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Development	-2.467	0.704
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Development	-1.142	0.465
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Development	-0.876	0.438
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Development	-2.814	0.796
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Development	-3.216	0.917
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Development	-0.700	0.425
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Development	-0.855	0.437
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Development	0.012	0.400
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Development	-2.141	0.629
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Development	-1.241	0.477
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Development	-1.005	0.451
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Development	-2.478	0.707
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Development	-2.878	0.814
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Development	-0.821	0.434
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Development	-0.984	0.448
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	-0.532	0.414
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	1.803	0.563
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	1.814	0.564
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	1.304	0.485
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	2.463	0.703

104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	3.497	1.011
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	1.348	0.491
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Fitness/performance	1.053	0.455
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	-0.288	0.404
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	1.779	0.558
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	1.814	0.565
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	1.236	0.476
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	2.310	0.667
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	3.389	0.974
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	1.367	0.493
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Fitness/performance	1.081	0.458
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Fitness/performance	-0.455	0.410
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Fitness/performance	1.717	0.547
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Fitness/performance	1.761	0.555
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Fitness/performance	1.142	0.465
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Fitness/performance	2.255	0.654
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Fitness/performance	3.353	0.962
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Fitness/performance	1.311	0.486
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Fitness/performance	1.015	0.452
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	-5.929	2.157
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	2.215	0.645
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	3.340	0.958
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	3.060	0.868
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	4.035	1.214
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	5.569	1.951
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	4.038	1.215
104	<i>Lithobates sylvaticus</i>	<i>Phragmites australis</i>	Experimental	Growth/mass	8.303	3.847
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	-3.111	0.884
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	3.728	1.095
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	4.444	1.387
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	4.312	1.330
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	4.932	1.616
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	5.614	1.976
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	5.046	1.673
104	<i>Lithobates sylvaticus</i>	<i>Phalaris arundinacea</i>	Experimental	Growth/mass	6.441	2.474
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Growth/mass	-3.439	0.991
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Growth/mass	3.810	1.126
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Growth/mass	4.648	1.480
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Growth/mass	4.410	1.372
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Growth/mass	5.151	1.726
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Growth/mass	5.989	2.194
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Growth/mass	5.176	1.740
104	<i>Lithobates sylvaticus</i>	<i>Rhamnus frangula</i>	Experimental	Growth/mass	7.022	2.865
105	<i>Hyla cinerea</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-3.146	0.373
105	<i>Hyla cinerea</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	1.493	0.213
105	<i>Hyla cinerea</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-0.607	0.174
105	<i>Hyla cinerea</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-0.487	0.172
105	<i>Hyla cinerea</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	0.507	0.172
105	<i>Hyla femoralis</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-0.057	0.286
105	<i>Hyla femoralis</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	0.107	0.286

105	<i>Hyla femoralis</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-0.116	0.286
105	<i>Hyla femoralis</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-1.942	0.420
105	<i>Hyla femoralis</i>	<i>Osteopilus septentrionalis</i>	Experimental	Fitness/performance	-0.144	0.286
106	<i>Anaxyrus fowleri</i>	<i>Incilius nebulifer</i>	Experimental	Development	-0.822	0.723
106	<i>Anaxyrus fowleri</i>	<i>Incilius nebulifer</i>	Experimental	Fitness/performance	-2.202	1.071
106	<i>Anaxyrus fowleri</i>	<i>Incilius nebulifer</i>	Experimental	Growth/mass	-1.945	0.982
106	<i>Anaxyrus fowleri</i>	<i>Incilius nebulifer</i>	Experimental	Growth/mass	-0.757	0.714
107	<i>Lithobates clamitans</i>	<i>Lonicera maackii</i>	Observational	Abundance/diversity	0.447	0.342
107	<i>Lithobates palustris</i>	<i>Lonicera maackii</i>	Observational	Abundance/diversity	-0.523	0.345
108	<i>Limnodynastes tasmaniensis</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	0.569	0.416
108	<i>Platyplectrum ornatum</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.966	0.447
108	<i>Notaden bennettii</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	0.471	0.411
108	<i>Limnodynastes terraereginae</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-1.180	0.470
108	<i>Limnodynastes tasmaniensis</i>	<i>Rhinella marina</i>	Experimental	Fitness/performance	-0.207	0.503
108	<i>Limnodynastes tasmaniensis</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	-3.251	1.037
108	<i>Platyplectrum ornatum</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	0.126	0.534
108	<i>Notaden bennettii</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	-2.464	0.913
108	<i>Limnodynastes terraereginae</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	-2.577	0.948
108	<i>Limnodynastes tasmaniensis</i>	<i>Rhinella marina</i>	Experimental	Growth/mass	-0.935	0.646
109	<i>Ichthyosaura alpestris</i>	<i>Carassius auratus</i>	Experimental	Behaviour (activity)	-0.631	0.210
109	<i>Ichthyosaura alpestris</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	-0.265	0.202
109	<i>Ichthyosaura alpestris</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	0.817	0.217
109	<i>Ichthyosaura alpestris</i>	<i>Carassius auratus</i>	Experimental	Behaviour (avoidance)	0.705	0.212
110	<i>Ichthyosaura alpestris</i>	<i>Carassius auratus</i>	Experimental	Behaviour (activity)	-4.270	0.546
110	<i>Ichthyosaura alpestris</i>	<i>Carassius auratus</i>	Experimental	Fitness/performance	-0.699	0.177
110	<i>Ichthyosaura alpestris</i>	<i>Carassius auratus</i>	Experimental	Fitness/performance	-1.444	0.210
110	<i>Ichthyosaura alpestris</i>	<i>Carassius auratus</i>	Experimental	Fitness/performance	-3.012	0.356

Table S2. References of all scientific articles from which data was extracted for the meta-analysis.

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Table S3. Alien species from different taxonomic groups used in the meta-analysis.

Group	Species
Plants	<i>Acer platanoides</i>
	<i>Alnus glutinosa</i>
	<i>Fallopia bohemica</i>
	<i>Lythrum salicaria</i>
	<i>Lonicera maackii</i>
	<i>Lonicera</i> spp.
	<i>Microstegium vimineum</i>
	<i>Pinus elliottii</i>
	<i>Pinus strobus</i>
	<i>Phalaris arundinacea</i>
	<i>Phragmites australis</i>
	<i>Rhamnus frangula</i>
	<i>Triadica sebifera</i>
	<i>Typha angustifolia</i>
Invertebrates	<i>Astacus leptodactylus</i>
	<i>Orconectes rusticus</i>
	<i>Pacifastacus leniusculus</i>
	<i>Physella acuta</i>
	<i>Pomacea canaliculata</i>
	<i>Procambarus clarkii</i>
	<i>Procambarus nigrocinctus</i>
	<i>Solenopsis invicta</i>
Fishes	<i>Carassius auratus</i>
	<i>Clarius batrachus</i>
	<i>Ctenopharyngodon idella</i>
	<i>Cyprinus carpio</i>
	<i>Gambusia affinis</i>
	<i>Gambusia holbrooki</i>
	<i>Herichthys cyanoguttatum</i>
	<i>Lepomis auritus</i>
	<i>Lepomis cyanellus</i>
	<i>Lepomis gibbosus</i>
	<i>Lepomis macrochirus</i>
	<i>Micropterus dolomieu</i>
	<i>Oncorhynchus mykiss</i>
	<i>Oreochromis niloticus</i>
	<i>Pimephales promelas</i>
	<i>Salmo trutta</i>
	<i>Salvelinus fontinalis</i>
Amphibians	<i>Discoglossus pictus</i>
	<i>Incilius nebulifer</i>
	<i>Lithobates catesbeianus</i>
	<i>Osteopilus septentrionalis</i>
	<i>Plethodon jordani</i>
	<i>Plethodon montanus</i>
	<i>Rhinella marina</i>

	<i>Xenopus laevis</i>
Reptiles	<i>Graptemys pseudogeographica</i>
	<i>Natrix maura</i>
	<i>Trachemys scripta elegans</i>
	<i>Trachemys scripta</i>
Mammals	<i>Dasypus novemcinctus</i>
	<i>Neovison vison</i>

Table S4. Taxonomy (order, family) and IUCN Red List status of native amphibian species used in the meta-analysis.

Species	Order	Family	IUCN status
<i>Alytes cisternasii</i>	Anura	Alytidae	Near Threatened
<i>Alytes muletensis</i>	Anura	Alytidae	Vulnerable
<i>Alytes obstetricans</i>	Anura	Alytidae	Least Concern
<i>Discoglossus galganoi</i>	Anura	Alytidae	Least Concern
<i>Anaxyrus americanus</i>	Anura	Bufonidae	Least Concern
<i>Anaxyrus boreas</i>	Anura	Bufonidae	Least Concern
<i>Anaxyrus fowleri</i>	Anura	Bufonidae	Least concern
<i>Anaxyrus quercicus</i>	Anura	Bufonidae	Least Concern
<i>Anaxyrus terrestris</i>	Anura	Bufonidae	Least Concern
<i>Bufo bufo</i>	Anura	Bufonidae	Least Concern
<i>Duttaphrynus melanostictus</i>	Anura	Bufonidae	Least Concern
<i>Epidalea calamita</i>	Anura	Bufonidae	Least Concern
<i>Rhinella dorbignyi</i>	Anura	Bufonidae	Least Concern
<i>Rhinella schneideri</i>	Anura	Bufonidae	Least Concern
<i>Cornufer vitianus</i>	Anura	Ceratobatrachidae	Endangered
<i>Fejervarya limnocharis</i>	Anura	Dicroglossidae	Least Concern
<i>Acris crepitans crepitans</i>	Anura	Hylidae	Least Concern
<i>Dendropsophus minutus</i>	Anura	Hylidae	Least Concern
<i>Dendropsophus sanborni</i>	Anura	Hylidae	Least Concern
<i>Hyla arborea</i>	Anura	Hylidae	Least Concern
<i>Hyla chrysoscelis</i>	Anura	Hylidae	Least Concern
<i>Hyla cinerea</i>	Anura	Hylidae	Least Concern
<i>Hyla femoralis</i>	Anura	Hylidae	Least Concern
<i>Hyla meridionalis</i>	Anura	Hylidae	Least Concern
<i>Hyla squirella</i>	Anura	Hylidae	Least Concern
<i>Hyla versicolor</i>	Anura	Hylidae	Least Concern
<i>Hypsiboas pulchellus</i>	Anura	Hylidae	Least Concern
<i>Litoria alboguttata</i>	Anura	Hylidae	Least Concern
<i>Litoria aurea</i>	Anura	Hylidae	Vulnerable
<i>Litoria australis</i>	Anura	Hylidae	Least Concern
<i>Litoria brevipes</i>	Anura	Hylidae	Least Concern
<i>Litoria dahlia</i>	Anura	Hylidae	Least Concern
<i>Litoria dentata</i>	Anura	Hylidae	Least Concern
<i>Litoria freycineti</i>	Anura	Hylidae	Vulnerable
<i>Litoria gracilentia</i>	Anura	Hylidae	Least Concern
<i>Litoria infrafrenata</i>	Anura	Hylidae	Least Concern
<i>Litoria lesueuri</i>	Anura	Hylidae	Least Concern
<i>Litoria nasuta</i>	Anura	Hylidae	Least Concern
<i>Litoria phyllochroa</i>	Anura	Hylidae	Least Concern
<i>Litoria rubella</i>	Anura	Hylidae	Least Concern
<i>Litoria spenceri</i>	Anura	Hylidae	Critically Endangered
<i>Litoria tornieri</i>	Anura	Hylidae	Least Concern
<i>Pseudacris fouquettei</i>	Anura	Hylidae	Least Concern
<i>Pseudacris regilla</i>	Anura	Hylidae	Least Concern

<i>Pseudis minuta</i>	Anura	Hylidae	Least Concern
<i>Scinax fuscovarius</i>	Anura	Hylidae	Least Concern
<i>Scinax squalirostris</i>	Anura	Hylidae	Least Concern
<i>Leptodactylus gracilis</i>	Anura	Leptodactylidae	Least Concern
<i>Leptodactylus latrans</i>	Anura	Leptodactylidae	Least Concern
<i>Physalaemus biligonigerus</i>	Anura	Leptodactylidae	Least Concern
<i>Physalaemus gracilis</i>	Anura	Leptodactylidae	Least Concern
<i>Physalaemus nattereri</i>	Anura	Leptodactylidae	Least Concern
<i>Physalaemus riograndensis</i>	Anura	Leptodactylidae	Least Concern
<i>Pseudopaludicola falcipes</i>	Anura	Leptodactylidae	Least Concern
<i>Gastrophryne carolinensis</i>	Anura	Microhylidae	Least Concern
<i>Kaloula pulchra</i>	Anura	Microhylidae	Least Concern
<i>Microhyla fissipes</i>	Anura	Microhylidae	Least Concern
<i>Microhyla ornata</i>	Anura	Microhylidae	Least Concern
<i>Limnodynastes peronii</i>	Anura	Myobatrachidae	Least Concern
<i>Limnodynastes tasmaniensis</i>	Anura	Myobatrachidae	Least Concern
<i>Limnodynastes terraereginae</i>	Anura	Myobatrachidae	Least Concern
<i>Notaden bennettii</i>	Anura	Myobatrachidae	Least Concern
<i>Platyplectrum ornatum</i>	Anura	Myobatrachidae	Least Concern
<i>Pseudophryne coriacea</i>	Anura	Myobatrachidae	Least Concern
<i>Pelobates cultripes</i>	Anura	Pelobatidae	Near Threatened
<i>Pelobates fuscus</i>	Anura	Pelobatidae	Least Concern
<i>Pelodytes ibericus</i>	Anura	Pelodytidae	Least Concern
<i>Pelodytes punctatus</i>	Anura	Pelodytidae	Least Concern
<i>Lithobates catesbeianus</i>	Anura	Ranidae	Least Concern
<i>Lithobates clamitans</i>	Anura	Ranidae	Least Concern
<i>Lithobates palustris</i>	Anura	Ranidae	Least Concern
<i>Lithobates sphenoccephalus</i>	Anura	Ranidae	Least Concern
<i>Lithobates sylvaticus</i>	Anura	Ranidae	Least Concern
<i>Lithobates yavapaiensis</i>	Anura	Ranidae	Least Concern
<i>Pelophylax perezii</i>	Anura	Ranidae	Least Concern
<i>Pelophylax ridibundus</i>	Anura	Ranidae	Least Concern
<i>Rana aurora</i>	Anura	Ranidae	Least Concern
<i>Rana aurora aurora</i>	Anura	Ranidae	Least Concern
<i>Rana boylei</i>	Anura	Ranidae	Near Threatened
<i>Rana cascadae</i>	Anura	Ranidae	Near Threatened
<i>Rana draytonii</i>	Anura	Ranidae	Vulnerable
<i>Rana iberica</i>	Anura	Ranidae	Near Threatened
<i>Rana luteiventris</i>	Anura	Ranidae	Least Concern
<i>Rana muscosa</i>	Anura	Ranidae	Endangered
<i>Rana temporaria</i>	Anura	Ranidae	Least Concern
<i>Polypedates megacephalus</i>	Anura	Rhacophoridae	Least Concern
<i>Ambystoma annulatum</i>	Urodela	Ambystomatidae	Least Concern
<i>Ambystoma gracile</i>	Urodela	Ambystomatidae	Least Concern
<i>Ambystoma macrodactylum</i>	Urodela	Ambystomatidae	Least Concern
<i>Ambystoma maculatum</i>	Urodela	Ambystomatidae	Least Concern
<i>Ambystoma mexicanum</i>	Urodela	Ambystomatidae	Critically Endangered
<i>Cryptobranchus alleganiensis</i>	Urodela	Cryptobranchidae	Near Threatened

<i>Cryptobranchus bishopi</i>	Urodela	Cryptobranchidae	Near Threatened
<i>Eurycea nana</i>	Urodela	Plethodontidae	Vulnerable
<i>Eurycea sosorum</i>	Urodela	Plethodontidae	Vulnerable
<i>Plethodon angusticlavius</i>	Urodela	Plethodontidae	Least Concern
<i>Plethodon glutinosus</i>	Urodela	Plethodontidae	Least Concern
<i>Ichthyosaura alpestris</i>	Urodela	Salamandridae	Least Concern
<i>Lissotriton boscai</i>	Urodela	Salamandridae	Least Concern
<i>Lissotriton helveticus</i>	Urodela	Salamandridae	Least Concern
<i>Pleurodeles waltl</i>	Urodela	Salamandridae	Near Threatened
<i>Salamandra infraimmaculata</i>	Urodela	Salamandridae	Near Threatened
<i>Salamandra salamandra</i>	Urodela	Salamandridae	Least Concern
<i>Taricha granulosa</i>	Urodela	Salamandridae	Least Concern
<i>Taricha torosa</i>	Urodela	Salamandridae	Least Concern
<i>Triturus marmoratus</i>	Urodela	Salamandridae	Least Concern
<i>Triturus pygmaeus</i>	Urodela	Salamandridae	Near Threatened

Table S5. Meta-regression random effects models of the impacts of alien species on different response variables of different life stages of native amphibians (eggs/larvae and metamorphs/adults), taking into account different control types (no species or native impacting species). Significant differences ($P < 0.05$) are highlighted in bold.

Eggs/Larvae						
Control type	Response variable	Mean effect	95% CI	P	Heterogeneity statistics	Random variables (σ)
No species						
	Abundance/ Diversity	-0.95	-1.60, -0.31	0.004	Q=52.07, df=20, p=0.0001	ID=0.29, ID(Type)=0.29
	Fitness/ performance	-1.75	-2.47, -1.03	<0.0001	Q=1104.68, df=135, p<0.0001	ID=2.30, ID(Type)=2.30
	Growth/mass	-0.27	-0.89, 0.35	0.40	Q=359.22, df=70, p<0.0001	ID=1.10, ID(Type)=1.10
	Development	-0.18	-0.62, 0.25	0.41	Q=201.52, df=40, p<0.0001	ID=0.34, ID(Type)=0.34
	Behaviour (activity)	-0.52	-0.86, -0.19	0.002	Q=416.03, df=109, p<0.0001	ID=0.33, ID(Type)=0.33
	Behaviour (avoidance)	0.16	-0.22, 0.54	0.41	Q=207.70, df=51, p<0.0001	ID=0.21, ID(Type)=0.21
	Morphology (body)	0.11	-0.40, 0.62	0.67	Q=73.21, df=32, p<0.0001	ID=0.01, ID(Type)=0.37
	Morphology (tail)	-0.34	-1.32, 0.63	0.49	Q=129.71, df=25, p<0.0001	ID=1.13, ID(Type)=0
Native species						
	Fitness/ performance	-0.55	-1.21, 0.11	0.10	Q=821.66, df=103, p<0.0001	ID=0.83, ID(Type)=0.83
	Growth/mass	0.24	-0.51, 0.99	0.53	Q=667.86, df=71, p<0.0001	ID=0.66, ID(Type)=0.66
	Development	-0.58	-1.01, -0.15	0.01	Q=212.08, df=43, p<0.0001	ID=0.13, ID(Type)=0.13
	Behaviour (activity)	0.59	0.24, 0.94	0.001	Q=178.55, df=61, p<0.0001	ID=0.14, ID(Type)=0.14
	Behaviour (avoidance)	0.15	-0.31, 0.62	0.52	Q=193.81, df=48, p<0.0001	ID=0.13, ID(Type)=0.13
	Morphology (body)	-0.85	-1.81, 0.12	0.09	Q=69.52, df=14, p<0.0001	ID=0.32, ID(Type)=0.32
	Morphology (tail)	-1.40	-2.13, -0.66	<0.001	Q=28.27, df=9, p=0.001	ID=0.14, ID(Type)=0.14
Metamorphs/Adults						
Control type	Response variable	Mean effect	95% CI	P	Heterogeneity statistics	Random variables (σ)
No species						
	Abundance/ Diversity	-0.79	-1.91, 0.33	0.17	Q=58.08, df=14, p<0.0001	ID=1.50, ID(Type)=1.50
	Fitness/ performance	-1.88	-6.69, 2.93	0.44	Q=120.67, df=18, p<0.0001	ID=13.87, ID(Type)=13.87
	Growth/mass	-0.67	-2.16, 0.81	0.37	Q=96.89, df=7, p<0.0001	ID=0.69, ID(Type)=0.69
	Behaviour (activity)	-0.55	-1.34, 0.23	0.17	Q=126.55, df=19, p<0.0001	ID=0.82, ID(Type)=0.82
	Behaviour (avoidance)	0.31	0.06, 0.56	0.01	Q=13.68, df=7, p=0.06	ID=0, ID(Type)=0
	Morphology (body)	0.29	-0.12, 0.70	0.16	Q=51.70, df=11, p<0.0001	N/A
Native species						
	Fitness/ performance	0.57	-0.08, 1.22	0.08	Q=4.71, df=3, p=0.19	N/A
	Growth/mass	0.03	-0.07, 0.13	0.53	Q=304.09, df=83, p<0.0001	N/A

					p<0.0001	
Behaviour (activity)	0.12	-0.18, 0.42	0.43		Q=24.33, df=10, p=0.01	ID=0.04, ID(Type)=0.04
Behaviour (avoidance)	-0.14	-0.65, 0.37	0.59		Q=15.43, df=6, p=0.02	ID=0.08, ID(Type)=0.08
Morphology (body)	1.57	1.09, 2.06	<0.0001		Q=68.34, df=11, p<0.0001	N/A

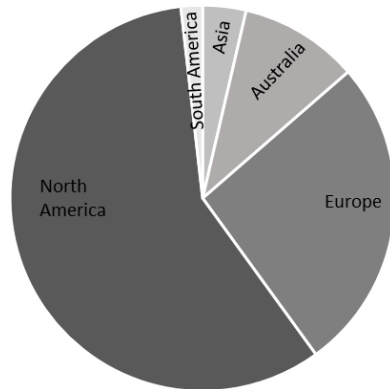
Table S6. Meta-regression random effects models of the impacts of different taxonomic groups of alien species (plants, invertebrates, fishes, amphibians, reptiles) on different response variables of native amphibians, taking into account different control types (no species or native impacting species). Significant differences ($P < 0.05$) are highlighted in bold.

Control type	Response variable	Mean effect	95% CI	P	Heterogeneity statistics	Random variables (σ)
No species						
	Abundance/ Diversity					
	Plants	-1.36	-4.23, 1.50	0.35	Q=58.44, df=6, $p < 0.0001$	ID=3.10, ID(Type)=3.10
	Invertebrates	-0.73	-1.59, 0.13	0.09	Q=17.54, df=8, $p=0.03$	ID=0.29, ID(Type)=0.29
	Fishes	-0.24	-1.32, 0.85	0.67	Q=32.29, df=14, $p=0.004$	ID=0.50, ID(Type)=0.50
	Amphibians	-0.52	-0.86, -0.19	0.002	Q=0.88, df=2, $p=0.64$	ID=0
	Fitness/performance					
	Plants	0.68	-0.05, 1.34	0.07	Q=95.24, df=15, $p < 0.0001$	ID=0.30, ID(Type)=0.30
	Invertebrates	-3.10	-4.64, -1.55	<0.001	Q=385.23, df=42, $p < 0.0001$	ID=2.66, ID(Type)=2.66
	Fishes	-2.00	-2.90, -1.08	<0.001	Q=223.49, df=42, $p < 0.0001$	ID=1.76, ID(Type)=1.76
	Amphibians	-0.85	-1.36, -0.35	0.001	Q=189.40, df=52, $p < 0.0001$	ID=0.27, ID(Type)=0.27
	Growth/mass					
	Plants	2.08	-1.00, 5.16	0.19	Q=49.20, df=7, $p < 0.0001$	ID=4.82, ID(Type)=4.82
	Invertebrates	0.42	-0.29, 1.12	0.24	Q=87.77, df=26, $p < 0.0001$	ID=0.26, ID(Type)=0.26
	Fishes	-0.67	-1.23, -0.11	0.02	Q=31.31, df=14, $p=0.01$	ID=0.23, ID(Type)=0.23
	Amphibians	-1.20	-1.68, -0.73	<0.001	Q=194.70, df=28, $p < 0.0001$	ID=0.14, ID(Type)=0.14
	Development					
	Plants	-0.30	-0.87, 0.27	0.30	Q=34.59, df=8, $p < 0.0001$	ID=0.16, ID(Type)=0.16
	Invertebrates	-1.23	-1.65, -0.80	<0.0001	Q=18.63, df=10, $p=0.05$	ID=0, ID(Type)=0
	Fishes	0.09	-0.33, 0.51	0.68	Q=27.65, df=8, $p=0.001$	ID=0.03, ID(Type)=0.03
	Amphibians	0.18	-1.05, 1.42	0.77	Q=129.24, df=15, $p < 0.0001$	ID=1.13, ID(Type)=1.13
	Behaviour (activity)					
	Invertebrates	-0.53	-1.02, -0.04	0.03	Q=219.21, df=65, $p < 0.0001$	ID=0.29, ID(Type)=0.29
	Fishes	-0.88	-1.29, -0.47	<0.0001	Q=139.43, df=34, $p < 0.0001$	ID=0.34, ID(Type)=0.34
	Amphibians	-0.35	-1.41, 0.71	0.52	Q=69.60, df=15, $p < 0.0001$	ID=1.04, ID(Type)=1.04
	Reptiles	-0.46	-0.98, 0.07	0.09	Q=3.99, df=8, $p=0.86$	ID=0.05, ID(Type)=0.05
	Behaviour (avoidance)					
	Invertebrates	-0.59	-0.87, -0.32	<0.0001	Q=47.22, df=23, $p=0.002$	ID=0, ID(Type)=0
	Fishes	0.50	0.14, 0.87	0.01	Q=70.28, df=21, $p < 0.0001$	ID=0.11, ID(Type)=0.11
	Amphibians	0.44	-0.31, 1.20	0.25	Q=16.40, df=8, $p=0.04$	ID=0.17, ID(Type)=0.17

	Reptiles	0.05	-0.25, 0.35	0.74	Q=9.70, df=2, p=0.01	N/A
	Morphology (body)					
	Invertebrates	0.41	0.14, 0.69	0.003	Q=56.76, df=21, p<0.0001	ID=0, ID(Type)=0
	Fishes	0.01	-0.71, 0.74	0.97	Q=35.42, df=13, p=0.001	ID=0.12, ID(Type)=0.12
	Reptiles	-0.51	-1.91, 0.88	0.47	Q=18.30, df=8, p=0.02	ID(Type)=0, ID(Type)=0.91
	Morphology (tail)					
	Invertebrates	0.14	-0.33, 0.60	0.56	Q=16.38, df=5, p=0.006	ID=0, ID(Type)=0
	Fishes	-1.27	-3.84, 1.30	0.33	Q=29.74, df=4, p<0.0001	ID=2.33, ID(Type)=1.29
	Reptiles	-0.07	-0.26, 0.12	0.47	Q=72.94, df=14, p<0.0001	ID=0, ID(Type)=0
Native Species	Response variable	Mean effect	95% CI	P	Heterogeneity statistics	Random variables (σ)
	Fitness/performance					
	Plants	-0.24	-1.19, 0.72	0.62	Q=427.88, df=54, p<0.0001	ID=0.80, ID(Type)=0.80
	Invertebrates	-0.51	-1.49, 0.47	0.30	Q=143.05, df=20, p<0.0001	ID=0.34, ID(Type)=0.34
	Fishes	-1.22	-2.97, 0.52	0.17	Q=244.48, df=31, p<0.0001	ID=2.15, ID(Type)=2.15
	Growth/mass					
	Plants	0.36	-0.65, 1.36	0.49	Q=869.51, df=129, p<0.0001	ID=0.77, ID(Type)=0.77
	Invertebrates	0.50	-0.22, 1.22	0.18	Q=87.49, df=22, p<0.0001	ID=0.15, ID(Type)=0.15
	Fishes	-0.83	-2.75, 1.10	0.40	Q=5.54, df=2, p=0.06	ID=0.75, ID(Type)=0.75
	Development					
	Plants	-0.60	-1.27, 0.08	0.08	Q=170.73, df=31, p<0.0001	ID=0.26, ID(Type)=0.26
	Invertebrates	-0.73	-1.15, -0.30	0.001	Q=40.59, df=10, p<0.0001	ID=0, ID(Type)=0
	Behaviour (activity)					
	Invertebrates	0.77	0.15, 1.39	0.01	Q=59.34, df=18, p<0.0001	ID=0.25, ID(Type)=0.25
	Fishes	0.39	0.09, 0.69	0.01	Q=81.62, df=33, p<0.0001	ID=0.07, ID(Type)=0.07
	Reptiles	0.74	0.55, 0.93	<0.0001	Q=46.07, df=15, p<0.0001	N/A
	Behaviour (avoidance)					
	Invertebrates	0.79	0.37, 1.20	<0.0001	Q=9.11, df=9, p=0.43	ID=0, ID(Type)=0
	Fishes	-0.04	-0.56, 0.47	0.87	Q=154.80, df=37, p<0.0001	ID=0.09, ID(Type)=0.09
	Amphibians	-0.14	-0.65, 0.37	0.59	Q=15.43, df=6, p=0.02	ID=0.08, ID(Type)=0.08
	Morphology (body)					
	Invertebrates	-0.42	-2.08, 1.24	0.62	Q=148.54, df=18, p<0.0001	ID=1.04, ID(Type)=1.04
	Fishes	0.83	0.30, 1.36	0.002	Q=40.73, df=7, p<0.0001	N/A
	Morphology (tail)					
	Invertebrates	-1.58	-2.47, -0.69	0.001	Q=13.73, df=6, p=0.03	ID=0.21, ID(Type)=0.21
	Fishes	-0.95	-1.81, -0.09	0.03	Q=14.04, df=2, p=0.001	N/A

$p=0.001$

a)



b)

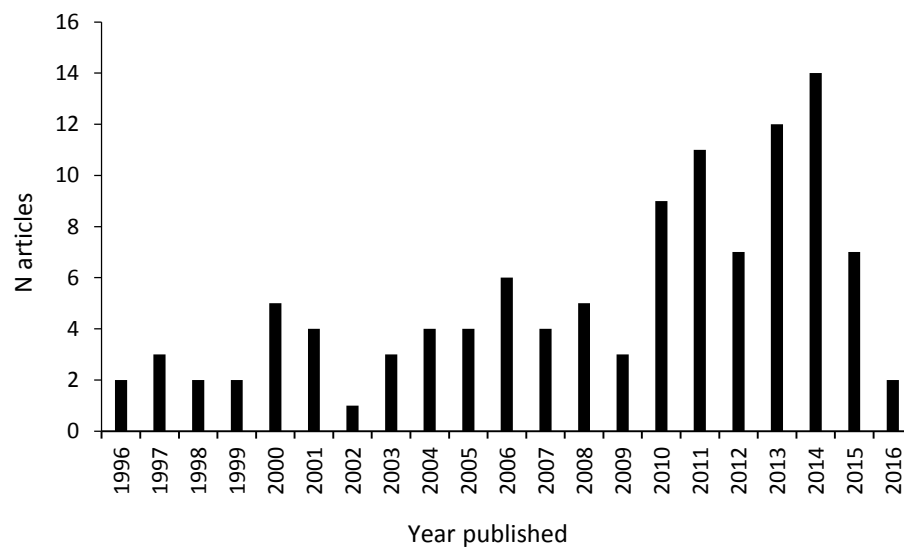


Figure S1. a) Continent and b) year of publication of studies used in the meta-analysis. Note: No records were found for Africa.

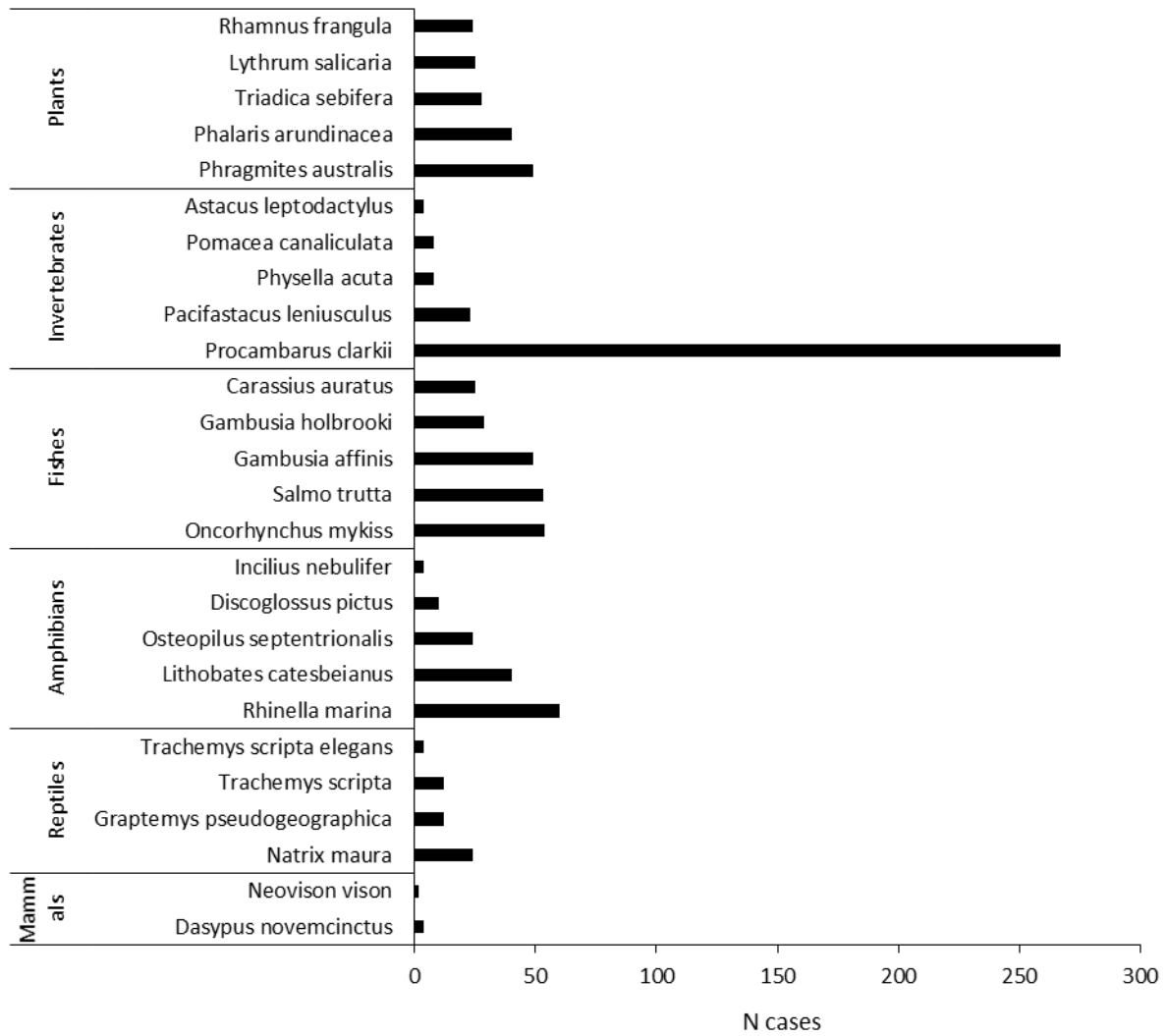


Figure S2. Alien impacting species, per taxonomic group, mostly represented in the meta-analysis and respective number of effect sizes (N cases) extracted from scientific articles for each of them.

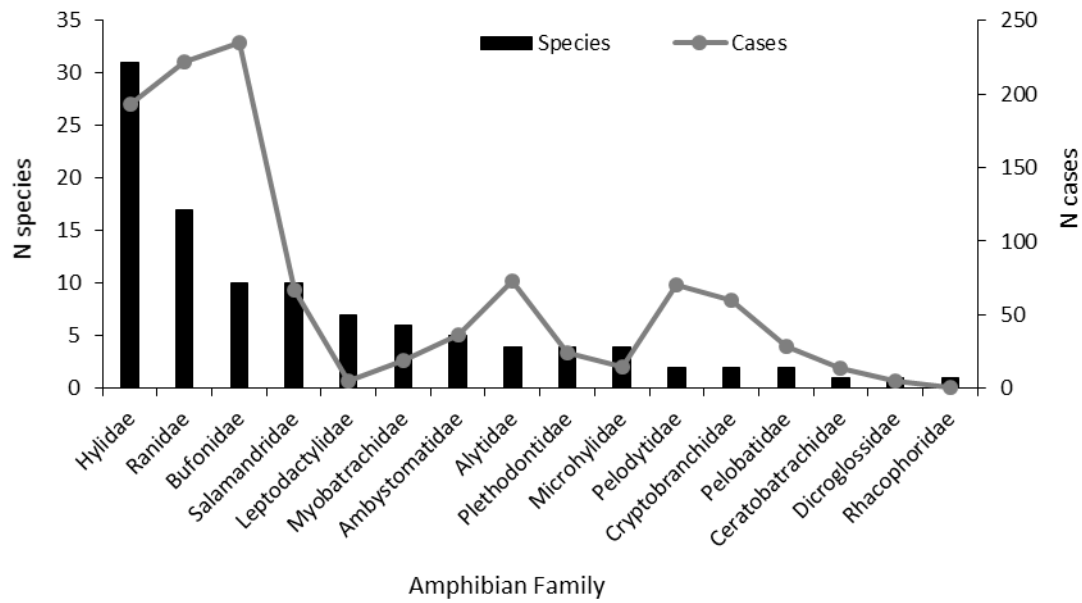


Figure S3. Family of native amphibian species and the respective number of species and effect sizes (N cases) represented by each of them in the meta-analysis.

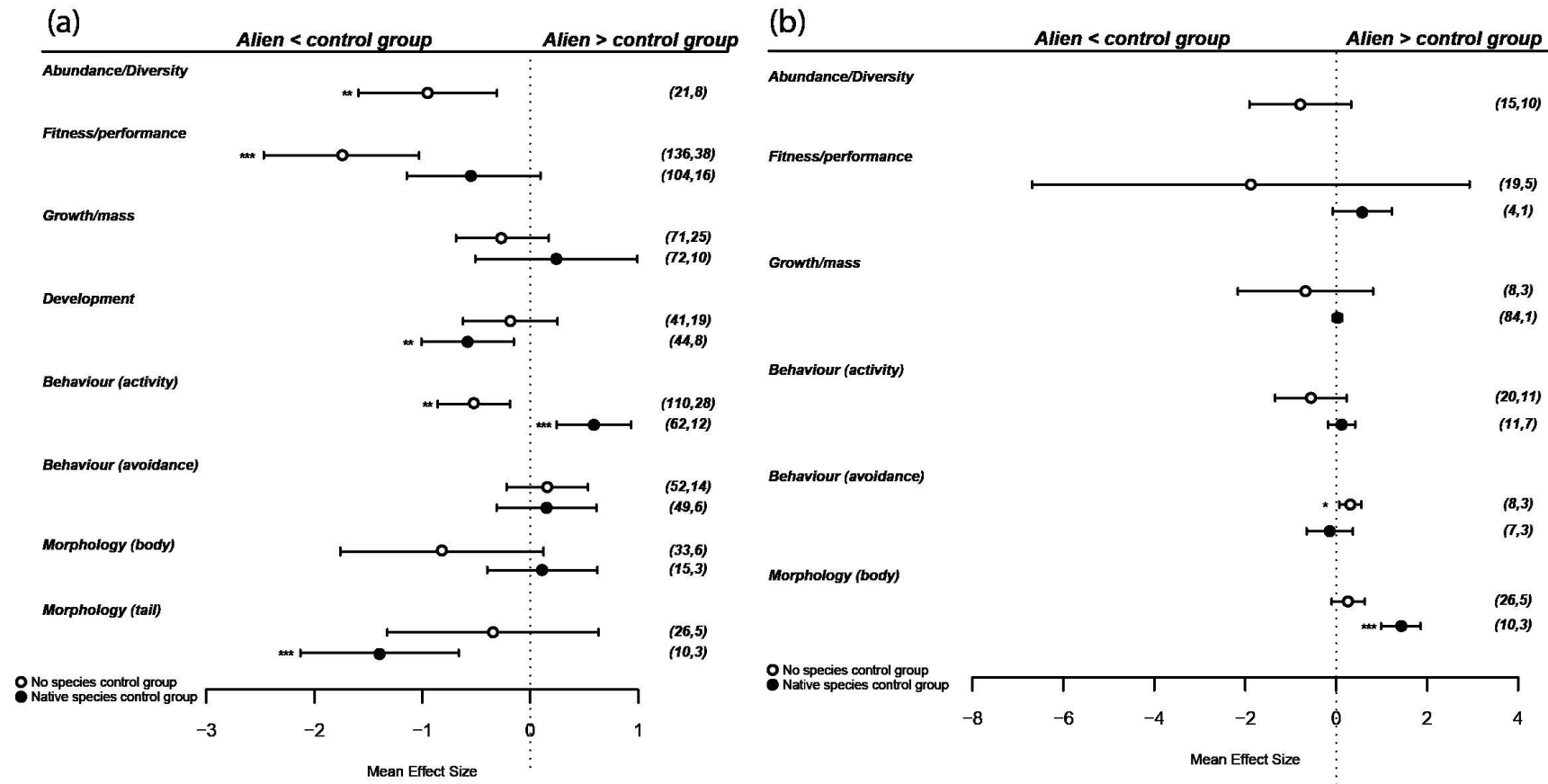


Figure S4. Effect sizes of response variables describing ecological impacts of alien species on a) eggs/larvae and b) metamorphs/adults of native amphibians, considering different control types (no species or native species). Error bars represent 95% confidence intervals (CI) and effects are considered significant when CIs do not overlap zero. Sample size and number of publications are shown in parentheses. * $P < 0.05$, ** $P \leq 0.01$, *** $P \leq 0.001$