

Short Note

Cross-species testing of nuclear markers in *Pelophylax* water frogs in Greece and examination of their power to detect genetic admixture

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Supplementary material

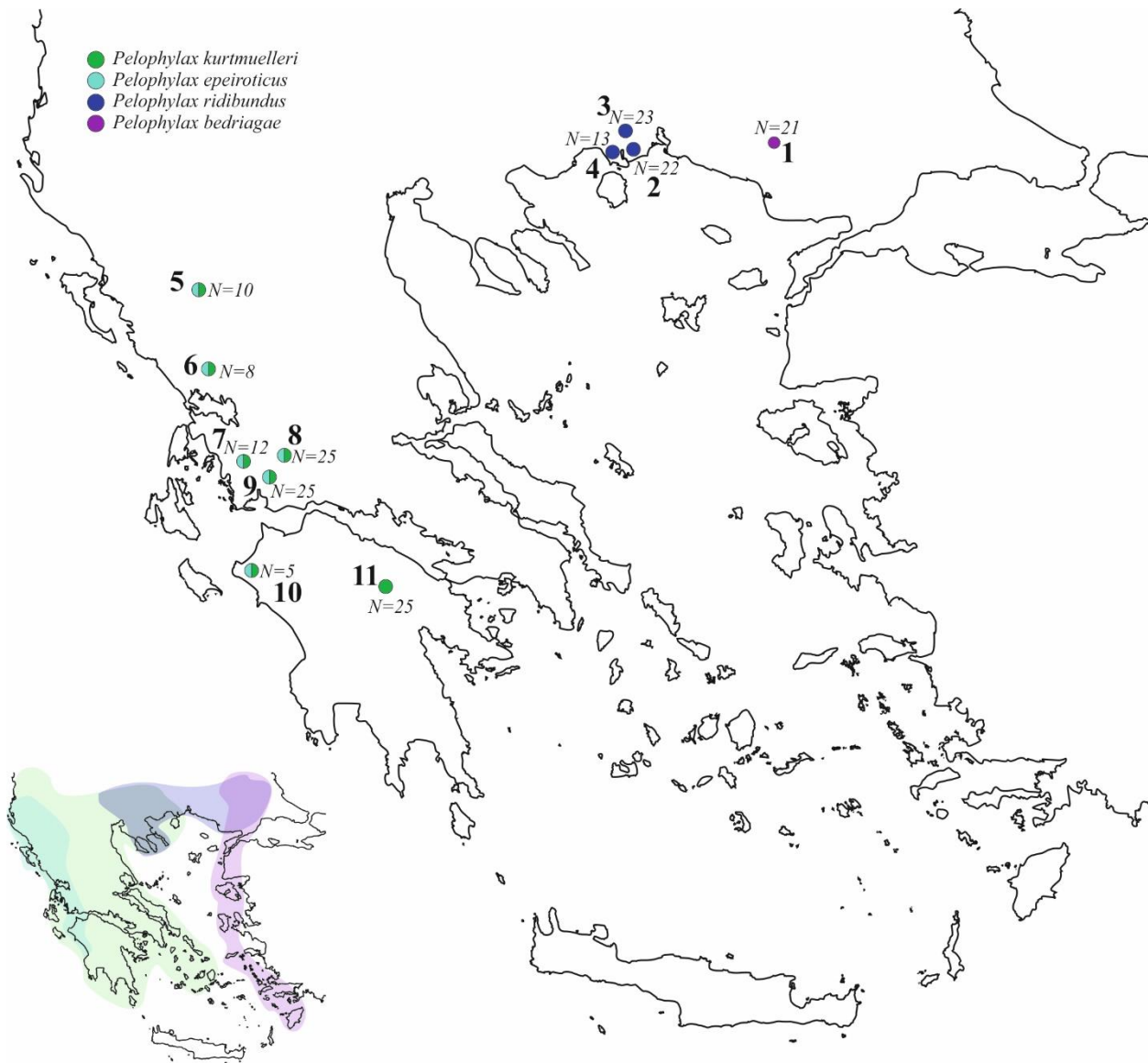


Figure S1. Sample locations of individuals used for microsatellite analyses and the number of specimens analysed in the different sampling localities. Different colours represent different species. Two colored points indicate sites where two species were sampled. Furthermore, the distribution of the four species studied in Greece and their overlapping distribution is given (Valakos et al., 2008) in the embedded map (bottom left). Numbers denote the different locations: 1: Didymoteicho, Evros (*Pelophylax* cf. *bedriagae*), 2: Erateino, Kavala (*Pelophylax ridibundus*), 3: Chrysochori, Kavala (*Pelophylax ridibundus*), 4: Keramoti, Kavala (*Pelophylax ridibundus*), 5: Lake Pamvotida, Ioannina (*Pelophylax epeiroticus* and *Pelophylax kurtmuelleri*), 6: Lake Zirou, Arta (*Pelophylax kurtmuelleri*), 7: Lake Ozeros, Aitolokarnania (*Pelophylax epeiroticus*), 8:

Lysimachia, Aitoloakarnania (*Pelophylax epeiroticus* and *Pelophylax kurtmuelleri*), 9:
Kleisorrevmata, Aitoloakarnania (*Pelophylax epeiroticus* and *Pelophylax kurtmuelleri*), 10:
Strofylia, Achaia (*Pelophylax epeiroticus*) and 11: Lake Doxa, Feneos (*Pelophylax kurtmuelleri*).

Table S1. The 17 microsatellite markers tested, the species for which these primers were developed as well as the reference study, primer sequences, multi-loading scheme (M), annealing temperature (T_A) and the concentration of Mg^{+2} selected. The mean inbreeding coefficient (F_{IS}) and the mean genetic differentiation (F_{ST}) among species are also provided. Abbreviations: PL: *Pelophylax lessonae*, PR: *Pelophylax ridibundus*, PE: *Pelophylax esculentus*, PP: *Pelophylax perezi*, F: the forward primer and R: the reverse primer.

Locus	Species	Primer Sequences (5'-3')	Reference	M	T_A	Mg^{+2}	F_{IS}	F_{ST}
Res5	PL	F: HEX-ATACTGCCAATAAGCTGGCAATGTTTAGC R: GGCCGACTTCAAAGGGGTGCTC	Zeisset et al., 2000	2	53.4	3 mM	0.476	0.085
Res14	PR	F: HEX-GCCTAGCCAGCACAAATG R: CTAAACAGTATGGGAGGTCAGA	Zeisset et al., 2000	1	61.6	1.5 mM	0.641	0.153
Res16	PL	F: FAM-GATCCTGATTTCCCTGCT R: GTTTATTTACTCTGTTTCGTCTT	Zeisset et al., 2000; <i>redesigned by Christiansen and Reyer, 2009</i>	2	51.8	1.5 mM	0.213	0.164
Res17	PR	F: HEX-CTGTGCTGGCTGGGTTATTGTA R: CATCGGGTCTGTCTATCTATCCAC	Zeisset et al., 2000	3	51.8	3 mM	0.423	0.197
Res20	PL	F: FAM-TTTGTAAATATTCCGCTGGTA R: CCGAGGTTGGCTGTCATTA	Zeisset et al., 2000	1	-	-	-	-
Rrid013A	PR	F: ROX-CGAGAATCGAAGTGGAGAGG R: ACCCGTCTCCACAATACTGC	Hotz et al., 2001	3	58.5	1.5 mM	0.281	0.104
Rrid082A	PR	F: TAMRA-CAATTTCTCCATACCAACCTTC R: ACTCTGGGACCTTGATTTC	Hotz et al., 2001	1	56.8	1.5 mM	0.309	0.055
Rrid059A	PR	F: ROX-TTGGAGACAGACTTCCGTAGG R: CCCATACATATTGTTGGTTCC	Hotz et al., 2001; <i>redesigned by Christiansen and Reyer, 2009</i>	2	-	-	-	-
Rrid064A	PR	F: TAMRA-TGTACGGGCTTTAGACTGG R: AACTTTTTGAAGGCCCTTG	Hotz et al., 2001; <i>redesigned by Christiansen and Reyer, 2009</i>	3	51.8	3 mM	0.176	0.114
Ga1a19	PE	F: TAMRA-GCACACTATTTCTGCTGTATTGC R: CAGGGGATTTTCCCATCAG	Christiansen, 2009; Arioli et al., 2010	2	55.1	1.5 mM	0.478	0.051
RICA1b5	PL	F: FAM-CCCAGTGACAGTGAGTACCG R: CCCAACTGGAGGACCAAAAAG	Sánchez-Montes et al., 2016	3	56.8	3 mM	0.349	0.086
Pper3.22	PP	F: FAM-ACTGTCATCTGGTCTGGTATCAC R: AACTAATTGTCCTCCTGTAGAAC	Sánchez-Montes et al., 2016	1	58.5	1.5 mM	0.378	0.102
Pper3.24	PP	F: TET-ATGTGGAGACTATCAGCAGACAG R: CAAGTCTTGACTGTTATACCGG	Sánchez-Montes et al., 2016	1	60.2	1.5 mM	0.557	0.214
Pper4.7	PP	F: FAM-TACCTCTTCTGCTATCTCTTGG R: AAGCAATTTATCAAGCAGGAGGG	Sánchez-Montes et al., 2016	3	56.8	1.5 mM	0.454	0.076

Pper4.23	PP	F: HEX-AGCTGTCAAAGGATGTCATGTTC R: TCAGGTGAGAGATCGAAATACCC	Sánchez-Montes et al., 2016	3	55.1	3 mM	0.308	0.007
Pper4.24	PP	F: ROX-TTTCCCTATTGCCTATGAACTGC R: AGTGCTATGGTTGGGATTTGAAC	Sánchez-Montes et al., 2016	1	60.2	1.5 mM	0.367	0.010
Pper4.29	PP	F: FAM-CTGTGCTACGAGGATTGTAATGG R: TTCATTCTCTGTGTCGTGAATGC	Sánchez-Montes et al., 2016	2	61.6	3 mM	0.784	0.148

Table S2. The output of NEWHYBRIDS denoting hybrid individuals for *Pelophylax ridibundus* and *Pelophylax cf. bedriagae*. The posterior probability of each individual to fall into one of the six categories (*P. ridibundus*-parental, *P. cf. bedriagae*-parental, F1 hybrids, F2 hybrids, backcrosses with *P. ridibundus*, and backcrosses with *P. cf. bedriagae*) is also indicated. Bold highlighted values, indicate estimated posterior probabilities higher than 0.20.

Species	Sampling Location	ID	<i>P. ridibundus</i> - parental	<i>P. cf. bedriagae</i> - parental	F1 hybrids	F2 hybrids	Back with <i>P. ridibundus</i>	Back with <i>P. cf. bedriagae</i>
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind1	0.98	0.00	0.00	0.00	0.02	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind2	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind3	0.92	0.00	0.00	0.00	0.07	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind4	0.96	0.00	0.00	0.00	0.04	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind5	0.61	0.00	0.00	0.06	0.32	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind6	0.98	0.00	0.00	0.00	0.02	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind7	0.97	0.00	0.00	0.00	0.03	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind8	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind9	0.97	0.00	0.00	0.00	0.03	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind10	0.23	0.00	0.00	0.42	0.34	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind11	0.28	0.00	0.00	0.45	0.27	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind12	0.95	0.00	0.00	0.00	0.05	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind13	0.92	0.00	0.00	0.00	0.08	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind14	0.98	0.00	0.00	0.00	0.02	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind15	0.06	0.00	0.00	0.25	0.69	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind16	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind17	0.00	0.00	0.00	0.99	0.01	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind18	0.00	0.00	0.00	0.96	0.04	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind19	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind20	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind21	0.03	0.00	0.00	0.07	0.90	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind22	0.18	0.00	0.00	0.42	0.40	0.00
<i>P. ridibundus</i>	Kavala, Chrysochori	Ind23	0.08	0.00	0.00	0.11	0.81	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind1	0.86	0.00	0.00	0.01	0.13	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind2	0.75	0.00	0.00	0.01	0.24	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind3	0.38	0.00	0.01	0.03	0.58	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind4	0.27	0.00	0.00	0.03	0.70	0.00

<i>P. ridibundus</i>	Kavala, Erateino	Ind5	0.92	0.00	0.00	0.00	0.07	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind6	0.97	0.00	0.00	0.00	0.03	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind7	0.83	0.00	0.00	0.01	0.16	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind8	0.00	0.00	0.03	0.57	0.39	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind9	0.97	0.00	0.00	0.00	0.03	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind10	0.42	0.00	0.00	0.01	0.57	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind11	0.92	0.00	0.00	0.00	0.08	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind12	0.98	0.00	0.00	0.00	0.02	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind13	0.81	0.00	0.00	0.01	0.18	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind14	0.87	0.00	0.00	0.01	0.13	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind15	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind16	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind17	0.98	0.00	0.00	0.00	0.02	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind18	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind19	0.13	0.00	0.00	0.53	0.33	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind20	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind21	0.96	0.00	0.00	0.00	0.04	0.00
<i>P. ridibundus</i>	Kavala, Erateino	Ind22	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind1	0.02	0.00	0.00	0.07	0.91	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind2	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind3	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind4	0.85	0.00	0.00	0.01	0.14	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind5	0.98	0.00	0.00	0.00	0.02	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind6	0.96	0.00	0.00	0.00	0.04	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind7	0.95	0.00	0.00	0.00	0.05	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind8	0.65	0.00	0.00	0.01	0.34	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind9	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind10	0.97	0.00	0.00	0.00	0.03	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind11	0.98	0.00	0.00	0.00	0.02	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind12	0.92	0.00	0.00	0.00	0.08	0.00
<i>P. ridibundus</i>	Kavala, Keramoti	Ind13	0.92	0.00	0.00	0.01	0.08	0.00
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind1	0.00	0.98	0.00	0.00	0.00	0.02
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind2	0.00	0.88	0.00	0.01	0.00	0.11
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind3	0.00	0.93	0.00	0.00	0.00	0.07
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind4	0.00	0.96	0.00	0.00	0.00	0.04
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind5	0.00	0.11	0.00	0.17	0.00	0.72

<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind6	0.00	0.88	0.00	0.01	0.00	0.11
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind7	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind8	0.00	0.90	0.00	0.00	0.00	0.09
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind9	0.00	0.78	0.00	0.02	0.00	0.20
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind10	0.00	0.92	0.00	0.00	0.00	0.07
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind11	0.00	0.90	0.00	0.01	0.00	0.09
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind12	0.00	0.00	0.00	0.95	0.04	0.01
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind13	0.00	0.94	0.00	0.00	0.00	0.06
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind14	0.00	0.84	0.00	0.02	0.00	0.14
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind15	0.00	0.98	0.00	0.00	0.00	0.02
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind16	0.00	0.95	0.00	0.00	0.00	0.05
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind17	0.00	0.14	0.12	0.38	0.06	0.31
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind18	0.00	0.94	0.00	0.00	0.00	0.06
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind19	0.00	0.80	0.01	0.02	0.00	0.17
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind20	0.00	0.00	0.00	0.68	0.00	0.32
<i>P. cf. bedriagae</i>	Evros, Didymoteicho	Ind21	0.32	0.00	0.00	0.09	0.59	0.00

Table S3. The output of NEWHYBRIDS denoting hybrid individuals for *Pelophylax kurtmuelleri* and *Pelophylax epeiroticus*. Specimen abbreviations as in supplementary table S1. Species assignment was based on morphological or mtDNA data. The posterior probability of each individual to fall into one of the six categories (*P. kurtmuelleri*-parental, *P. epeiroticus*-parental, F1 hybrids, F2 hybrids, backcrosses with *P. kurtmuelleri* and backcrosses with *P. epeiroticus*) is also indicated. Bold highlighted values, indicate estimated posterior probabilities higher than 0.20.

Species	Sampling Location	ID	<i>P. epeiroticus</i> - parental	<i>P. kurtmuelleri</i> - parental	F1 hybrids	F2 hybrids	Back with <i>P. epeiroticus</i>	Back with <i>P. kurtmuelleri</i>
<i>P. epeiroticus</i>	Achaia, Strofylia	Ind1	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Achaia, Strofylia	Ind2	0.00	0.00	0.00	0.96	0.03	0.00
<i>P. epeiroticus</i>	Achaia, Strofylia	Ind3	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Achaia, Strofylia	Ind4	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Achaia, Strofylia	Ind5	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Kleisorrevmata	Ind1	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Kleisorrevmata	Ind2	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Kleisorrevmata	Ind3	0.71	0.00	0.00	0.07	0.22	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Kleisorrevmata	Ind4	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Kleisorrevmata	Ind5	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Kleisorrevmata	Ind6	0.96	0.00	0.00	0.00	0.04	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Kleisorrevmata	Ind7	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Kleisorrevmata	Ind8	0.95	0.00	0.00	0.00	0.05	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Kleisorrevmata	Ind9	0.84	0.00	0.00	0.03	0.14	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Kleisorrevmata	Ind10	0.97	0.00	0.00	0.00	0.03	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind11	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind12	0.00	0.52	0.00	0.00	0.00	0.47
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind13	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind14	0.00	0.90	0.00	0.00	0.00	0.09
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind15	0.00	0.90	0.00	0.01	0.00	0.09
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind16	0.00	0.95	0.00	0.00	0.00	0.05
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind17	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind18	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind19	0.00	0.56	0.00	0.01	0.00	0.43
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind20	0.00	0.54	0.00	0.05	0.00	0.42
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind21	0.00	0.99	0.00	0.00	0.00	0.01

<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind22	0.00	0.64	0.00	0.09	0.00	0.26
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind23	0.00	0.97	0.00	0.00	0.00	0.03
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind24	0.00	0.43	0.00	0.17	0.00	0.39
<i>P. kurtmuelleri</i>	Aitoloakarnania, Kleisorrevmata	Ind25	0.00	0.98	0.00	0.00	0.00	0.02
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind1	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind2	0.00	0.81	0.00	0.00	0.00	0.18
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind3	0.00	0.96	0.00	0.00	0.00	0.04
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind4	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind5	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind6	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind7	0.00	0.97	0.00	0.00	0.00	0.03
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind8	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind9	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind10	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind11	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind12	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind13	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind14	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind15	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind16	0.00	0.98	0.00	0.00	0.00	0.02
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind17	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind18	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind19	0.00	0.98	0.00	0.00	0.00	0.02
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind20	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind21	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind22	0.00	0.84	0.00	0.01	0.00	0.15
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind23	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lake Doxa	Ind24	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind1	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind2	0.57	0.00	0.00	0.16	0.26	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind3	0.21	0.00	0.00	0.54	0.25	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind4	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind5	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind6	0.18	0.00	0.00	0.51	0.31	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind7	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind8	1.00	0.00	0.00	0.00	0.00	0.00

<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind9	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind10	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind11	0.98	0.00	0.00	0.00	0.02	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lake Ozeros	Ind12	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind1	0.98	0.00	0.00	0.00	0.02	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind2	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind3	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind4	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind5	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind6	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind7	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind8	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind9	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind10	0.97	0.00	0.00	0.00	0.03	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind11	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind12	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind13	0.40	0.00	0.00	0.01	0.60	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind14	0.98	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind15	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind16	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind17	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind18	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind19	0.88	0.00	0.00	0.00	0.11	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind20	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind21	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Aitoloakarnania, Lysimachia	Ind22	0.92	0.00	0.00	0.00	0.08	0.00
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lysimachia	Ind23	0.00	0.99	0.00	0.00	0.00	0.01
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lysimachia	Ind24	0.00	0.00	0.00	0.92	0.04	0.03
<i>P. kurtmuelleri</i>	Aitoloakarnania, Lysimachia	Ind25	0.00	1.00	0.00	0.00	0.00	0.00
<i>P. kurtmuelleri</i>	Arta, Lake Zirou	Ind1	0.00	0.02	0.00	0.72	0.00	0.26
<i>P. kurtmuelleri</i>	Arta, Lake Zirou	Ind2	0.00	0.00	0.00	0.98	0.00	0.02
<i>P. kurtmuelleri</i>	Arta, Lake Zirou	Ind3	0.00	0.95	0.00	0.00	0.00	0.05
<i>P. kurtmuelleri</i>	Arta, Lake Zirou	Ind4	0.00	0.65	0.00	0.10	0.00	0.25
<i>P. kurtmuelleri</i>	Arta, Lake Zirou	Ind5	0.00	0.49	0.00	0.01	0.00	0.50
<i>P. kurtmuelleri</i>	Arta, Lake Zirou	Ind6	0.00	0.95	0.00	0.00	0.00	0.05
<i>P. kurtmuelleri</i>	Arta, Lake Zirou	Ind7	0.00	0.95	0.00	0.00	0.00	0.05

<i>P. kurtmuelleri</i>	Arta, Lake Zirou	Ind8	0.00	0.96	0.00	0.00	0.00	0.04
<i>P. epeiroticus</i>	Ioannina, Lake Pamvotida	Ind1	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Ioannina, Lake Pamvotida	Ind2	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Ioannina, Lake Pamvotida	Ind3	0.97	0.00	0.00	0.00	0.03	0.00
<i>P. epeiroticus</i>	Ioannina, Lake Pamvotida	Ind4	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Ioannina, Lake Pamvotida	Ind5	0.99	0.00	0.00	0.00	0.01	0.00
<i>P. epeiroticus</i>	Ioannina, Lake Pamvotida	Ind6	0.66	0.00	0.00	0.09	0.25	0.00
<i>P. epeiroticus</i>	Ioannina, Lake Pamvotida	Ind7	1.00	0.00	0.00	0.00	0.00	0.00
<i>P. epeiroticus</i>	Ioannina, Lake Pamvotida	Ind9	0.00	0.50	0.00	0.12	0.00	0.39
<i>P. kurtmuelleri</i>	Ioannina, Lake Pamvotida	Ind8	0.00	0.77	0.00	0.02	0.00	0.21
<i>P. kurtmuelleri</i>	Ioannina, Lake Pamvotida	Ind10	0.00	0.96	0.00	0.00	0.00	0.04

Reference

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