

SUPPLEMENTARY MATERIAL

Species, ESUs or populations? Delimiting and describing morphologically cryptic diversity in Australian desert spring amphipods

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Table S1. Primers used for anonymous nuclear loci (ANL)

ANL	Forward primer	Reverse primer
1307	CAGCGGGCGTAAAATTGAGT	ATTCATTTATCAGGGGATGC
1309	GAGTTCTCTACCTCACTCAT	CAATAAAGGCTGTGGAGATG
1313	TCGGCGTTGAATAGACTCGG	AATCATCGTCATCATCGTCA
1315	TTTCAACCAACCCAGGCAAC	CCAAATCAGGATCAAAATGT
1317	CTCACCTTTAATTGTTTGCC	CAGCCTGCTCTTGACCGAAG
1319	GCTGAAGAAGTCTGGCTCCT	GGCAGGGCGTGATGTATGTC
1321	AGAGAGACGCTTTGAAGTGT	TCTGCTGAAAGTAAACTGCT
1323	CAATAGCAACATAAGGTCAC	TCTAACAGAAACAAATCCCT

Table S2. Principal component variable loadings of the first three components in shape space

A1, antenna 1; A2, antenna 2; Gn2, gnathopod 2; U1, uropod 1; U2, uropod 2; ped, peduncle; flag, flagellum; length, total length

	Shape PC1	Shape PC2	Shape PC3
A1ped	-0.1	0.18	0.01
A1flag	-0.47	0.36	-0.04
A1length	-0.28	0.26	-0.01
A2ped	-0.07	0.02	0.02
A2flag	-0.35	-0.66	0.14
A2length	-0.21	-0.32	0.07
Gn2length	0.09	0.2	-0.01
U1ped	0.27	0.05	0.02
U1rami	0.38	0.28	0.51
U2ped	0.26	-0.04	-0.84
U2rami	0.48	-0.34	0.13

Table S3. The variance, proportion and cumulative proportion of variance of the first three components in shape of variance space

	Shape PC1	Shape PC2	Shape PC3
Variance	0.04	0.01	0.01
Proportion of variance	0.46	0.12	0.09
Cumulative proportion	0.46	0.58	0.67

Fig. S1. Individual unrooted networks estimated from anonymous nuclear loci (ANL), calculated using neighbour-joining analyses (using the Kimura 2 parameter model). A – ANL-1307, B – ANL-1309, C – ANL-1313, D – ANL-1315, E – ANL-1317, F – ANL-1319, G – ANL-1321, H – ANL-1323, I – COI mtDNA.

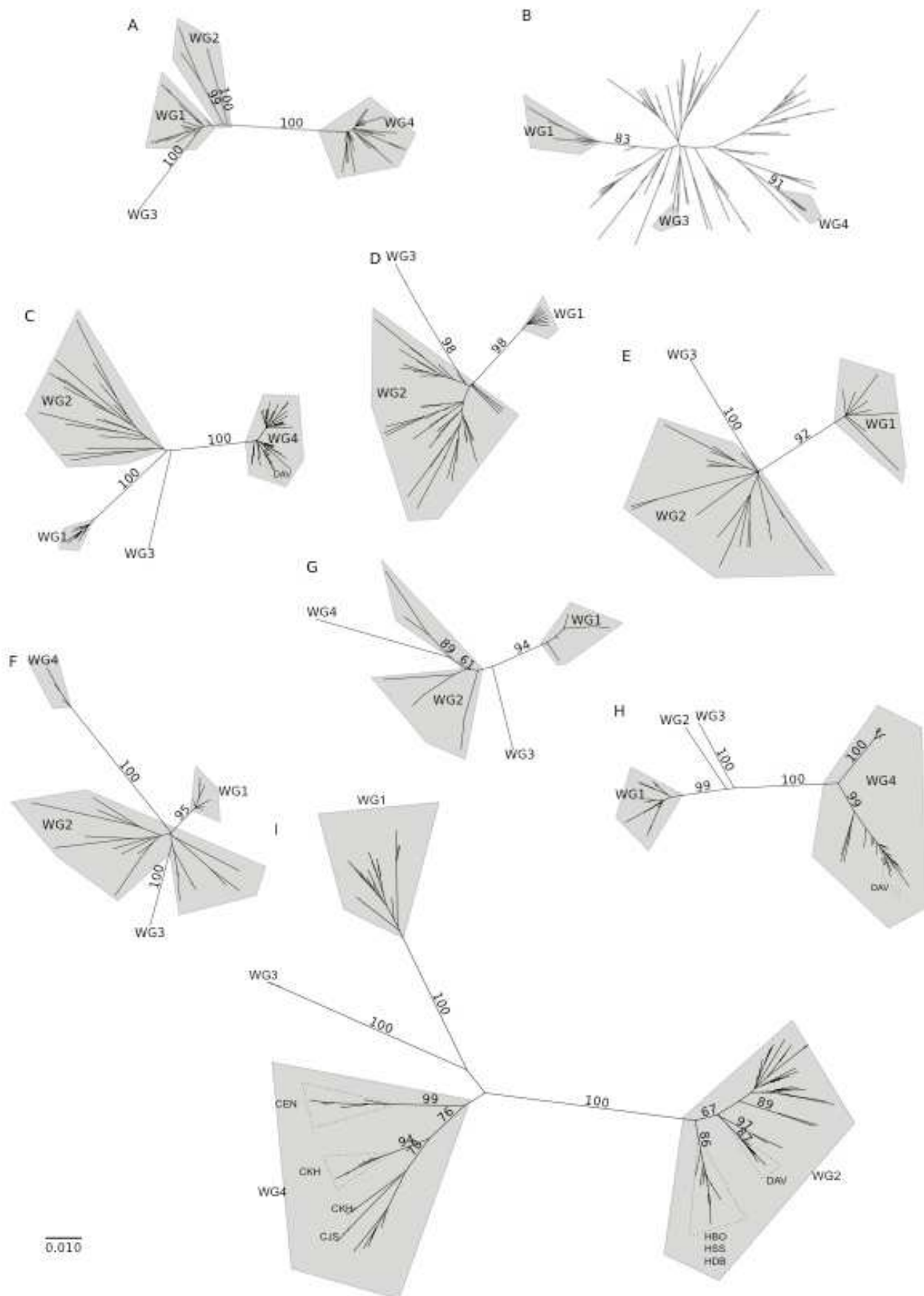


Fig. S2. Results of BEAST species tree analyses for (A) the '4pop' model (i.e. among the ESUs), and (B) the '13pop' model (i.e. among the spring groups); numbers on nodes refer to Bayesian posterior probabilities.

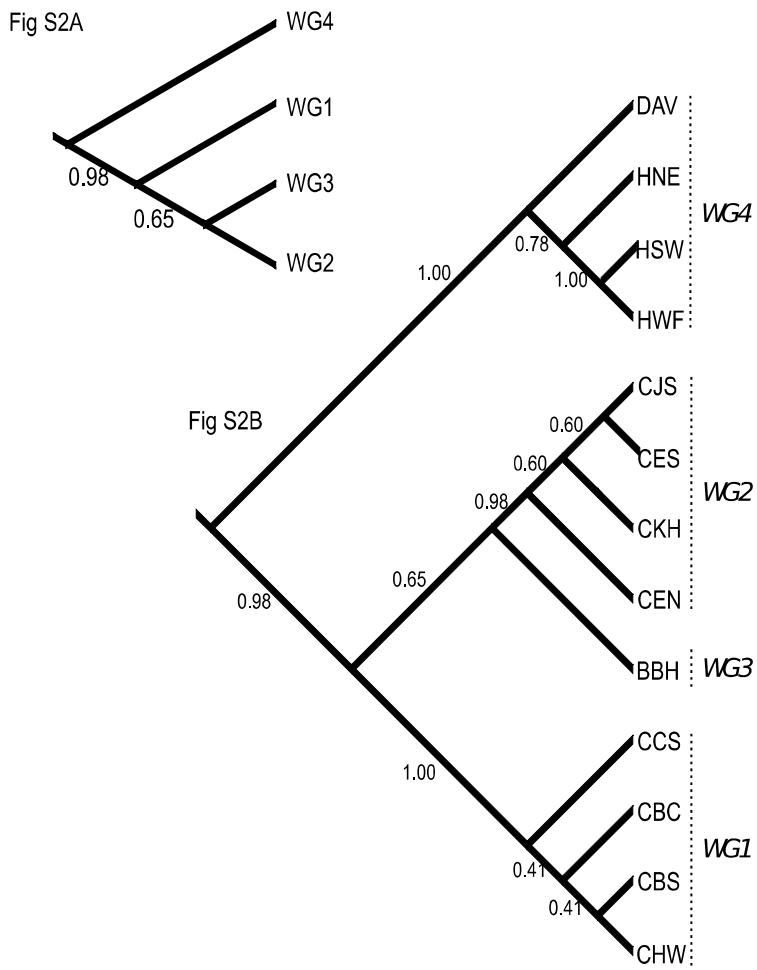


Fig. S3. Scatterplot of isometric size versus the log-scale total length of amphipods.

