

Additional file 3. Characterisation of redesigned Primer set_B for *Hydrobia ulvae*

Locus	Corresponding A-primer clone name	Primer set	Repeat motif	Exp. allele size (bp) †	Primer sequence 5'–3' with 5' label or pigtail* (underlined)‡	$Pv3$ (°C)Ψ	T_m (°C)	T_a (°C)	MgCl ₂ (mM)	N	A	Allele range (bp)	H_o	H_e	HWE p -value
<i>Hulv-01</i>	66C08	B	GA(CA) ₃ (GACA) ₄ (GA) ₂ (CA) ₂ (GA) ₂₂ CA(GA) ₇ CA(GA) ₄ CA(GA) ₄ CA(GA) ₇	230	F: HEX-GATCTGGGGCACACACAA R: <u>(GTTTCTT)</u> -CACAAATCGGGGAGAAGG	59.0 59.0	51.0	2.0	40	24	214 – 338	0.63	0.83	**	
<i>Hulv-02</i>	67G01	B	Primers not redesigned due to difficulty in identifying new primer sites												
<i>Hulv-03</i>	67H10	B	(A) ₂₃ & CTTACTA(CTTA) ₇	172	F: HEX-GACTCGGGCACTCCACAGTAAA R: <u>(GTTTCTT)</u> -TCAATAGGGAAGGGTGAGTCC	63.7 63.6	55.0	2.0	46	16	155 – 177	0.59	0.89	**	
<i>Hulv-04</i>	68D02	B	(CA) ₃₀ AACA	172	F: 6-FAM-ACGGGTGTAACAACGACAAT R: <u>(GTTTCTT)</u> -GATCTGCAAGAGAGATGTAAGAAGT	57.9 57.5	51.0	2.0	47	27	134 – 204	0.92	0.91	NS	
<i>Hulv-05</i>	69C07	B	(GTTA) ₂₁	235	F: 6-FAM-GATCGTAGGCTACTTACTACCACTG R: <u>(GTTTCTT)</u> -TCTGACCTGGTGTGCATGT	57.8 57.4	51.0	2.0	44	21	174 – 306	0.59	0.93	**	
<i>Hulv-06</i>	60F03	B	(CTAA) ₄ (CTCA) ₁₂	217	F: HEX-CACAAAGCAACAGCTATAACTAA R: <u>(GTTTCTT)</u> -TGATGGTGTCTGACTGAATC	54.5 54.3	51.0	2.0	40	21	169 – 249	0.33	0.94	**	
<i>Hulv-07</i>	69A07	B	(GTTA) ₉	154	F: 6-FAM-CCGCACTACCAATGTAGC R: <u>(GTTTCTT)</u> -ATCAATAATCGGGCTTAAAAC	55.2 55.1	50.0	2.0	34	20	123 – 236	0.12	0.95	**	

† Allele size in sequenced library source individual; ‡ Pigtail: GTTTCTT added to 5' end of reverse primer to reduce stutter bands [33].

Note that in all cases the 7 base pair pigtails have been incorporated in the allele sizes stated.

Ψ, Primers designed and melting temperature (T_m) calculated using PRIMER3 ($Pv3$) [32].

T_a , annealing temperature; N , number of individuals successfully genotyped from the Dyfi estuary, Wales; A , number of alleles observed;

H_o , observed heterozygosity; H_e , expected heterozygosity.

** Locus deviates significantly from Hardy-Weinberg equilibrium ($p < 0.01$), estimated using GENEPOP v3.4 [25].

NS, no significant deviation from Hardy-Weinberg equilibrium.