

Assessing the viability of reintroduction of locally extinct migratory fish *Brycon orbignyanus*: Successful growth, dispersal and maturation
Supplementary material

Table S1 – Details of the recaptured fish.

CODE	DATE OF RECAPTURE	SITE OF RECAPTURE (UTM SAD-69)	AGE (DAYS)	WEIGHT (g)	LENGHT (cm)	GONADAL STAGE*	SCHOOLING
R1	25/07/16	22J 0502556 E / 6908345 S	914	776,22	37,7	I	Yes
R2	25/07/16	22J 0502556 E / 6908345 S	914	877,54	39,4	I	Yes
R3	25/07/16	22J 0502556 E / 6908345 S	914	905,45	43,1	IV	Yes
R4	25/07/16	22J 0502556 E / 6908345 S	914	931,62	42,2	IV	Yes
R5	06/03/17	22J 0487664 E / 6921959 S	1138	933,13	40,3	I	Yes
R6	06/03/17	22J 0487664 E / 6921959 S	1138	1004,67	43,5	IV	Yes
R7	05/06/17	22J 0491950 E / 6916362 S	1229	1027,84	42,7	IV	No
R8	25/06/17	22J 0502556 E / 6908345 S	1249	1032,11	44,2	IV	Yes
R9	25/06/17	22J 0502556 E / 6908345 S	1249	1050,12	45,5	IV	Yes
R10	25/06/17	22J 0502556 E / 6908345 S	1249	1130,21	45	IV	Yes
R11	25/06/17	22J 0502556 E / 6908345 S	1249	1130,89	44,4	IV	Yes
R12	25/06/17	22J 0502556 E / 6908345 S	1249	1342,77	45,3	IV	Yes
R13	03/07/17	22J 0511890 E / 6898272 S	1257	1600,04	49,2	IV	No

*Gonadal Development Stages according to Vazzoler (1981)
stage I (immature): gonads of reduced size, translucent, located adjacent to the vertebral column
stage II (maturing): gonads occupying a third of the abdominal cavity with well-developed capillary network
stage III (mature): gonads turgid, occupying the majority of the abdominal cavity;
stage IV (empty or resting) gonads flaccid with haemorrhagic aspect.

Table S2 - Characteristics of the amplified microsatellite loci.

LOCUS	REPETITION	SEQUENCY (5'-3')	TEMPERATURE (°C)
Bh5	(CA) ₁₃	F: CTTCCACTCATAACCGGCACT R: ACATCTGGCATTAGGCATAG	56
Bh6	(CA) ₁₄	F: GCGTTGCGTGTGTATGTAA R: AGAGGTGTCCACAAAGTTTT	56
Bh8	(GAT) ₅	F: CCATGGCTCAACACAGATAT R: TGTACGAATCCTGAAATGCT	56
Bh13	(AT) ₇	F: AGCAATTTAAGCAAGTGAAG R: GCGTCGGAGCAGTAGTTATA	56
Bh16	(TAA) ₈	F: CCTCCAATGAAAACAGTGCG R: ACGACTTAGCCACCCACCCT	56

Table S3 - Intra-population genetic diversity indexes obtained for two groups of *B. orbignyanus*. Average values based on 5 microsatellite loci.

Group	Na	Ne	I	Ho	He	Fis
Control	4,000	2,556	1,045	0,434	0,584	0,271**
Recaptured	3,800	2,680	1,041	0,541	0,584	-0,001**

Na = number of alleles per *locus*; Ne = Effective number of alleles per *locus*; I = Shannon Index; Ho = Observed heterozygosity, He = Expected heterozygosity; Fis = Inbreeding Index.

** = $P \leq 0.01$

Table S4 – Analysis of Molecular Variance (AMOVA) for recaptured and captive *Brycon orbignyanus* based on microsatellite markers.

Source	df	SS	MS	Est. Var.	%	Fst Value
Among Populations	1	11,244	11,244	0,195	11%	0,108***
Among Individuals	37	97,990	2,178	0,562	31%	
Within Individuals	39	49,500	1,053	1,053	58%	
Total	77	158,734		1,810	100%	

df = Degrees of freedom, SS = sum of squares, MS = Mean Squares, Est. Var. = Estimated Variance, Fst = Pairwise Fixation index.

***Significant at $\alpha = 0.001$ level, based on 999 permutations.