

1 Supplementary material

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3 Life beyond a jar: Effects of tank size and furnishings on the behaviour
4 and welfare of Siamese fighting fish (*Betta splendens*)

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15 **Table S1. Pair-wise contrasts between tanks: Comparison of the size of the difference**
16 **between tanks for recorded behaviours using contrast estimates, associated *t*- or *z*-tests,**
17 **confidence intervals, and *P*-values. Behaviours with a * appended indicate the use of contrast**
18 **odd ratios instead of estimates, *z*-test, and asymptomatic upper and lower confidence values**
19 **to compare differences between tanks. Significant values are shown in bold.**

Behaviour	Contrasting tanks		Contrast Estimates	<i>t</i> -test/ <i>z</i> -ratio	Confidence Intervals		<i>P</i> -value
					Lower	Upper	
Swimming	Jar	Small	-14	-0.9	-56	28	>0.999
	Jar	Medium	-12	-0.69	-59	35	>0.999
	Jar	Large	-93	-5.31	-140	-45	<0.001
	Small	Medium	2	0.11	-45	49	>0.999
	Small	Large	-79	-4.53	-126	-32	<0.001
	Medium	Large	-81	-5.32	-122	-39	<0.001
	Large	Barren	58	3.76	16	101	<0.001
Resting	Jar	Small	46	2	-17	109	0.186
	Jar	Medium	-4	-0.16	-75	67	>0.999
	Jar	Large	110	4.19	39	181	<0.001
	Small	Medium	-51	-1.93	-122	21	0.186

	Small	Large	64	2.43	-8	135	0.080
	Medium	Large	114	5.05	53	175	<0.001
	Large	Barren	-5	-0.22	-68	58	>0.999
Foraging*	Jar	Small	1.88	1.15	0.428	8.250	0.251
	Jar	Medium	0.29	-2.07	0.056	1.459	0.078
	Jar	Large	0.08	-3.97	0.014	0.437	<0.001
	Small	Medium	0.15	-2.9	0.027	0.875	0.015
	Small	Large	0.04	-4.63	0.006	0.262	<0.001
	Medium	Large	0.27	-2.79	0.076	0.952	0.016
	Large	Barren	14.64	4.92	3.378	63.486	<0.001
Stereotypic Swimming*	Jar	Small	0.03	-4.56	0.003	0.229	<0.001
	Jar	Medium	0.22	-1.59	0.016	2.880	0.284
	Jar	Large	0.18	-1.77	0.014	2.417	0.284
	Small	Medium	7.87	2.39	0.775	79.810	0.100
	Small	Large	6.60	2.20	0.660	66.078	0.138
	Medium	Large	0.84	-0.3	0.171	4.130	0.767
	Large	Barren	0.32	-1.8	0.060	1.743	0.284
Interaction with surface*	Jar	Small	1.68	1.15	0.503	5.580	0.497
	Jar	Medium	0.69	-0.72	0.174	2.748	0.497
	Jar	Large	4.39	2.80	1.061	18.167	0.030
	Small	Medium	0.41	-1.74	0.105	1.625	0.251
	Small	Large	2.62	1.86	0.651	10.547	0.251
	Medium	Large	6.35	3.92	1.783	22.628	<0.001
	Large	Barren	0.30	-2.66	0.086	1.012	0.039
Nesting*	Jar	Small	0.29	-2.24	0.065	1.283	1.283
	Jar	Medium	0.25	-2.15	0.046	1.410	1.410
	Jar	Large	0.22	-2.4	0.040	1.205	1.205
	Small	Medium	0.89	-0.22	0.196	3.992	3.992
	Small	Large	0.76	-0.49	0.171	3.398	3.398
	Medium	Large	0.86	-0.27	0.196	3.770	3.770
	Large	Barren	4.17	2.05	0.639	27.143	27.143

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21 **Table S2. Results of resting place analysis: Contrasts between the probabilities of resting at**
 22 **the three places. Significant values are shown in bold.**
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	Estimate	SE	z.ratio	P-value
$\log\left(\frac{P_{\text{resting on floor}}}{P_{\text{resting on furnishings}}}\right)$	0.04	0.038	0.1	0.991
$\log\left(\frac{P_{\text{resting on floor}}}{P_{\text{resting on the water surf}}}\right)$	4.62	0.365	12.7	<0.001

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$\log\left(\frac{P_{resting\ on\ furnishings}}{P_{resting\ on\ the\ water\ surf}}\right)$	4.58	0.464	9.9	<0.001
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