

# Ecological Flow Assessment to Improve the Spawning Habitat for the Four Major Species of Carps of the Yangtze River: A Study on Habitat Suitability Based on Ultrasonic Telemetry

## Supplementary Materials

**Table S1.** Summary of acoustic monitoring data for tagged four major Chinese carps during ecological operation.

Tag no.	Date	Time (o'clock)	VR2W no.	Tag no.	Date	Time (o'clock)	VR2W no.
55185	June 8	2	ZC12	34545	June 12	8	YD04
55185	June 8	6	ZC11	55174	June 12	8	ZC09
55185	June 8	6	ZC10	55175	June 12	8	ZC01
55185	June 8	7	ZC09	55175	June 12	8	ZC02
55185	June 8	12	ZC05	55175	June 12	8	ZC03
55185	June 8	14	ZC03	55135	June 12	9	YD07
55185	June 8	15	ZC02	55175	June 12	10	ZC05
55185	June 8	16	ZC01	55175	June 12	10	ZC07
55174	June 8	18	ZC11	34555	June 12	11	YD07
55185	June 8	21	ZC02	34555	June 12	12	YD04
55185	June 8	23	ZC03	34555	June 12	12	YD03
55174	June 9	1	ZC10	34555	June 12	14	YD02
34554	June 9	1	ZC03	55178	June 12	23	YD07
55174	June 9	5	ZC11	34558	June 20	16	YD02
55185	June 9	6	ZC02	55153	June 20	17	YD04
55185	June 9	7	ZC01	55153	June 20	19	YD02
55174	June 9	17	ZC10	34559	June 20	23	YD07
34554	June 10	1	ZC02	34559	June 21	2	YD02
55179	June 10	2	YD06	34559	June 21	6	YD06
34554	June 10	3	ZC02	55146	June 21	8	YD03
55174	June 10	4	ZC09	55164	June 21	11	YD06
34545	June 10	7	ZC05	55164	June 21	15	YD05
55191	June 10	13	YD06	34545	June 22	0	YD06
55191	June 10	13	YD05	34545	June 22	1	YD05
55191	June 10	15	YD04	34545	June 22	2	YD03
34559	June 10	22	YD07	34558	June 22	3	ZC02
34559	June 10	23	YD05	34558	June 22	4	ZC03
34559	June 11	1	YD03	34558	June 22	5	ZC01
34559	June 11	2	YD02	34567	June 22	5	ZC03
34559	June 11	3	YD01	34541	June 22	6	ZC03
55178	June 11	3	ZC13	55195	June 22	10	YD05
55146	June 11	11	ZC03	55195	June 22	12	YD03
55146	June 11	12	ZC11	34545	June 22	21	YD06
55146	June 11	12	ZC10	34545	June 23	0	YD05
55146	June 11	14	ZC08	55175	June 23	1	ZC12
55143	June 11	15	YD08	34541	June 23	3	ZC05
55143	June 11	16	YD06	55175	June 23	4	ZC07
55143	June 11	17	YD07	34545	June 23	5	YD03

55143	June 11	19	YD04	55175	June 23	5	ZC05
34555	June 12	0	ZC01	55175	June 23	6	ZC03
55160	June 12	3	YD07	55175	June 23	6	ZC02
55175	June 12	4	YD02	55175	June 23	7	ZC01
55175	June 12	4	YD04	34545	June 23	11	YD01
55143	June 12	5	ZC10	55175	June 23	16	YD08
55160	June 12	5	YD04	34551	June 23	17	ZC08
55175	June 12	5	YD08	34551	June 23	18	ZC07
34545	June 12	6	YD05	55175	June 23	18	YD06
34545	June 12	6	YD06	34558	June 23	19	YD06
55174	June 12	6	ZC10	55175	June 23	19	YD05
55174	June 12	6	ZC11	34551	June 23	20	ZC05
34545	June 12	7	YD03	34558	June 23	20	YD05
55160	June 12	7	YD02	55175	June 23	21	YD03
55160	June 12	7	YD01	34551	June 23	23	ZC03

Table S2. Daily spawning egg numbers and WUA at Yidu spawning ground.

Date	Flow (m <sup>3</sup> /s)	WUA (km <sup>2</sup> )	Daily spawning egg numbers (×10 <sup>8</sup> )
May 9, 2015	11100	6.2866	0.008
May 12, 2015	11400	6.3316	0.027
May 16, 2015	11800	6.3860	0.044
May 18, 2015	11500	6.3458	0.065
May 19, 2015	9770	6.0437	0.051
May 21, 2015	10100	6.1106	0.013
May 29, 2015	14250	6.5795	0.031
May 30, 2015	13150	6.5223	0.756
June 1, 2015	12650	6.4803	0.013
June 3, 2015	7530	5.4747	0.131
June 8, 2015	14400	6.5836	0.043
June 9, 2015	19700	6.1490	2.251
June 10, 2015	19750	6.1395	0.114
June 18, 2015	21700	5.6930	0.547
June 21, 2015	20100	6.0706	0.062
June 22, 2015	16050	6.5687	0.016
June 27, 2015	26750	3.8295	1.523
June 30, 2015	26750	3.8295	0.016
July 1, 2015	32600	0.3956	0.186
July 2, 2015	31500	1.1458	0.126
May 22, 2017	14300	6.5810	0.050
May 24, 2017	16400	6.5516	0.011
June 1, 2017	13900	6.5666	0.031
June 8, 2017	19000	6.2708	0.017
June 10, 2017	19600	6.1676	3.323
June 11, 2017	15100	6.5906	0.397
June 18, 2017	22500	5.4658	1.991
June 19, 2017	22100	5.5826	0.346
June 25, 2017	17900	6.4226	1.150
June 28, 2017	24800	4.6700	0.992
July 9, 2017	27600	3.4156	0.858
July 10, 2017	26100	4.1266	0.632