

Supplementary materials

Table S1. The time-series of census data used in our analysis for four key sites in the Yangtze River.

NO.	Lake name	Area (km <sup>2</sup> )	Province	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
1	Shengjin Hu	132.59	Anhui	ND	ND	ND	1-Feb	2-Feb	3-Feb	3-Feb	7-Feb	7-Feb	7-Feb	7-Feb	7-Feb	7-Feb	7-Jan	7-Jan	7-Jan
2	Baidang Hu	38.97	Anhui	ND	ND	ND	1-Feb	2-Feb	3-Feb	3-Feb	7-Feb	7-Feb	7-Feb	7-Feb	7-Dec	7-Feb	7-Jan	7-Jan	7-Jan
3	Caizi Hu	196.52	Anhui	ND	ND	ND	1-Feb	2-Feb	3-Feb	3-Feb	7-Feb	7-Feb	7-Feb	7-Feb	7-Dec	7-Feb	7-Jan	7-Jan	7-Jan
4	Huangda Hu	270.55	Anhui	ND	ND	ND	1-Feb	2-Feb	3-Feb	3-Feb	7-Feb	7-Feb	7-Feb	7-Feb	7-Dec	7-Feb	7-Jan	7-Jan	7-Jan
5	Po Hu	151.29	Anhui	ND	ND	ND	1-Feb	2-Feb	3-Feb	3-Feb	7-Feb	7-Feb	7-Feb	7-Feb	7-Dec	7-Feb	7-Jan	7-Jan	7-Jan
6	Fengsha Hu	16.62	Anhui	ND	ND	ND	1-Feb	2-Feb	3-Feb	3-Feb	7-Feb	7-Feb	7-Feb	7-Feb	7-Dec	7-Feb	7-Jan	7-Jan	7-Jan
7	Wuchang Hu	103.38	Anhui	ND	ND	ND	1-Feb	2-Feb	3-Feb	3-Feb	7-Feb	7-Feb	7-Feb	7-Feb	7-Dec	7-Feb	7-Jan	7-Jan	7-Jan
8	Caisang Hu	148.32	Hunan	ND	ND	ND	1-Feb	2-Feb	6-Jan	6-Jan	6-Feb	7-Feb	7-Feb	7-Feb	6-Jan	6-Jan	6-Jan	6-Jan	7-Jan
9	Dingzidi	90.45	Hunan	ND	ND	ND	1-Feb	2-Feb	6-Jan	6-Jan	6-Feb	7-Feb	7-Feb	7-Feb	6-Jan	6-Jan	6-Jan	6-Jan	7-Jan
10	Bai-Hongqi Hu	323.18	Hunan	ND	ND	ND	1-Feb	2-Feb	6-Jan	6-Jan	6-Feb	7-Feb	7-Feb	7-Feb	6-Jan	6-Jan	6-Jan	6-Jan	7-Jan
11	Chunfeng Hu	82.24	Hunan	ND	ND	ND	1-Feb	2-Feb	6-Jan	6-Jan	6-Feb	7-Feb	7-Feb	7-Feb	6-Jan	6-Jan	6-Jan	6-Jan	7-Jan
12	Beigang Hu	25.36	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
13	Liaohua Chi	6.13	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
14	Sai Hu	60.50	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
15	Shili Hu	12.27	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
16	Zao Hu	12.26	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
17	Nan Hu	6.77	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
18	Zhu Hu	73.68	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
19	Junshan Hu	155.56	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
20	Fang Hu	29.72	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
21	Taibo Hu	35.53	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
22	Chi Hu	71.38	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
23	Wan Hu	7.53	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
24	Qili Hu	15.88	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
25	Xieshan Hu	11.36	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
26	Meixi Hu	4.28	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb

NO.	Lake name	Area (km <sup>2</sup> )	Province	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
27	Qi Hu	12.75	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
28	Gaoqiao Hu	7.97	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
29	Gushan Hu	3.15	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
30	Boyang Hu	5.93	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
31	Jinxi-Chenjia Hu	104.94	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
32	Dalianzi Hu	25.87	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
33	Dong Hu	49.61	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
34	Hanchi Hu	67.35	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
35	Chang Hu	6.80	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
36	Dawu Hu	10.53	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
37	San Hu	13.87	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
38	Poyanghu NNR	230.76	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
39	Jishan Hu	11.96	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
40	Linchong Hu	26.23	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
41	Qinglan Hu	62.07	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
42	Xinmiao Hu	35.28	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb
43	Xi Hu	45.41	Jiangxi	5-Jan	5-Jan	5-Jan	1-Feb	2-Feb	5-Dec	5-Dec	5-Jan	5-Feb	5-Feb	5-Feb	5-Feb	ND	ND	7-Feb	7-Feb

Note: <sup>1</sup> = WWF 2004 middle-lower Yangtze River floodplain survey;.

<sup>2</sup> = WWF 2005 middle-lower Yangtze River floodplain survey;.

<sup>3</sup> = Shengjin Lake National Nature Reserve survey;.

<sup>4</sup> = Anqing Yanjiang Nature Reserve survey;.

<sup>5</sup> = Poyang Lake National Reserve survey;.

<sup>6</sup> = Dongdongting Lake National Nature Reserve survey;.

<sup>7</sup> = Survey conducted by authors;.

ND = No data available.

**Table S2.** A list of the SR products with the date and row/line numbers corresponding to survey dates.

Path/Row	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
121/039	NS	NS	NS	2/15/04	1/16/05	1/11/06	1/6/07	1/1/08	1/11/09	1/14/10	2/2/11	12/11/11	3/3/13	1/17/14	1/4/15	2/8/16
121/040	1/29/01	1/8/02	1/27/03	2/15/04	12/31/04	1/27/06	1/6/07	1/1/08	2/12/09	1/14/10	12/8/10	12/11/11	NS	NS	2/5/15	2/8/16
122/039	1/28/01	12/30/01	1/10/03	2/6/04	1/31/05	NS	1/29/07	2/9/08	2/11/09	2/22/10	1/24/11	12/2/11	NS	NS	2/12/15	2/15/16
123/040	NS	NS	NS	2/13/04	1/6/05	1/9/06	2/5/07	12/14/07	2/10/09	2/21/10	1/15/11	1/26/12	1/28/13	1/31/14	12/17/14	2/6/16