



*Supplement of*

## **Temperature changes derived from phenological and natural evidence in South Central China from 1850 to 2008**

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2 **Supporting Information**

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4 **S1 Table. Phenological records derived from historical dairies in Central China during**  
5 **1862-1916**

Year	Location	Species <sup>a</sup> and phenophase	Date <sup>b</sup>	Name of Dairy <sup>c</sup>
1862	Chenzhou, 25.8°N, 113.0°E	<i>PB</i> , End of flowering	4/17	The Dairy of Tanyuan
1864	Guanyintan, 26.5°N, 111.9°E	<i>PP</i> , Late period of flowering	3/25	The Dairy of Tanyuan
1868	Changsha, 28.2°N, 112.9°E	<i>SB</i> , Late period of leaf	4/1	The Dairy of Tanyuan
1874	Gushui, 27.8°N, 112.2°E	<i>PP</i> , Late period of flowering	4/7	The Dairy of Guo Songtao
1878	Wuhan, 30.6°N, 114.3°E	<i>MH</i> , First flowering	3/23	The Dairy of Fan Zanchen
	Wuhan, 30.6°N, 114.3°E	<i>MH</i> , Full of flowering	3/25	The Dairy of Fan Zanchen
	Wuhan, 30.6°N, 114.3°E	<i>PSu</i> , End of flowering	4/14	The Dairy of Fan Zanchen
1882	Changsha, 28.2°N, 112.9°E	<i>PSu</i> , Full of flowering	4/4	The Dairy of Guo Songtao
1883	Wuhan, 30.6°N, 114.3°E	<i>PM</i> , Full of flowering	3/3	The Dairy of Fan Zanchen
1884	Changsha, 28.2°N, 112.9°E	<i>PSu</i> , Full of flowering	4/1	The Dairy of Guo Songtao
1888	Wuhan, 30.6°N, 114.3°E	<i>PSu</i> , First flowering	4/18	The Dairy of Fan Zanchen
	Changsha, 28.2°N, 112.9°E	<i>PP</i> , Full of flowering	3/22	The Dairy of Xiangqi-Lou
	Changsha, 28.2°N, 112.9°E	<i>MH</i> , First flowering	3/22	The Dairy of Xiangqi-Lou
1889	Wuhan, 30.6°N, 114.3°E	<i>PSu</i> , Early period of flowering	4/24	The Dairy of Fan Zanchen
1890	Changsha, 28.2°N, 112.9°E	<i>PSu</i> , First flowering	4/1	The Dairy of Xiangqi-Lou
1891	Zhuzhou, 27.6°N, 113.2°E	<i>PP</i> , Full of flowering	3/28	The Dairy of Xiangqi-Lou
		<i>PSa</i> , Late period of flowering	3/28	The Dairy of Xiangqi-Lou
1892	Hengyang, 26.9°N, 112.6°E	<i>PP</i> , First flowering	3/19	The Dairy of Xiangqi-Lou
1893	Hengyang, 26.9°N, 112.6°E	<i>PP</i> , First flowering	3/24	The Dairy of Xiangqi-Lou
1894	Jingzhou, 30.3°N, 112.2°E	<i>PSu</i> , Full of flowering	4/13	The Dairy of Lianrangxianju
	Changsha, 28.2°N, 112.9°E	<i>MH</i> , Late period of flowering	3/24	The Dairy of Xiangqi-Lou
1895	Jingzhou, 30.3°N, 112.2°E	<i>PSu</i> , Full of flowering	4/18	The Dairy of Lianrangxianju
	Xiangtan, 27.8°N, 112.9°E	<i>PP</i> , Full of flowering	3/21	The Dairy of Xiangqi-Lou
1896	Changsha, 28.2°N, 112.9°E	<i>PP</i> , Swelling of bud	2/16	The Dairy of Xiangqi-Lou
	Changsha, 28.2°N, 112.9°E	<i>PSe</i> , Full of flowering	3/13	The Dairy of Xiangqi-Lou
1897	Wuxue, 29.8°N, 115.6°E	<i>SB</i> , Late period of leaf	3/19	The Dairy of Returning South
1898	Jingzhou, 30.3°N, 112.2°E	<i>PSu</i> , Full of flowering	4/9	The Dairy of Lianrangxianju
	Xiangtan, 27.8°N, 112.9°E	<i>PP</i> , Full of flowering	3/30	The Dairy of Xiangqi-Lou
	Xiangtan, 27.8°N, 112.9°E	<i>PSa</i> , Late period of flowering	3/30	The Dairy of Xiangqi-Lou
1899	Hengyang, 26.9°N, 112.6°E	<i>PP</i> , Full of flowering	3/15	The Dairy of Xiangqi-Lou
		<i>PA</i> , Late period of flowering	3/15	The Dairy of Xiangqi-Lou
1900	Changsha, 28.2°N, 112.9°E	<i>PSu</i> , Full of flowering	4/14	The Dairy of Xiangqi-Lou
1901	Xiangtan, 27.8°N, 112.9°E	<i>PSa</i> , Late period of flowering	3/22	The Dairy of Xiangqi-Lou
1902	Xiangtan, 27.8°N, 112.9°E	<i>CC</i> , Full of flowering	3/13	The Dairy of Xiangqi-Lou
1905	Xiangtan, 27.8°N, 112.9°E	<i>PSu</i> , First flowering	4/20	The Dairy of Xiangqi-Lou

1906	Xiangtan, 27.8°N, 112.9°E	<i>PSa</i> , Full of flowering	3/13	The Dairy of Xiangqi-Lou
1907	Xiangtan, 27.8°N, 112.9°E	<i>PSu</i> , First flowering	4/11	The Dairy of Xiangqi-Lou
1908	Xiangtan, 27.8°N, 112.9°E	<i>PP</i> , Late period of flowering	3/24	The Dairy of Xiangqi-Lou
1909	Xiangtan, 27.8°N, 112.9°E	<i>PP</i> , Full of flowering	4/3	The Dairy of Xiangqi-Lou
1910	Xiangtan, 27.8°N, 112.9°E	<i>PSu</i> , Late period of flowering	4/16	The Dairy of Xiangqi-Lou
1911	Xiangtan, 27.8°N, 112.9°E	<i>PP</i> , Late period of flowering	3/28	The Dairy of Xiangqi-Lou
1912	Xiangtan, 27.8°N, 112.9°E	<i>PP</i> , Full of flowering	3/23	The Dairy of Xiangqi-Lou
1913	Xiangtan, 27.8°N, 112.9°E	<i>PP</i> , Late period of flowering	3/25	The Dairy of Xiangqi-Lou
1914	Xiangtan, 27.8°N, 112.9°E	<i>PA</i> , Late period of flowering	3/9	The Dairy of Xiangqi-Lou
1915	Xiangtan, 27.8°N, 112.9°E	<i>PP</i> , First flowering	3/21	The Dairy of Xiangqi-Lou
1916	Xiangtan, 27.8°N, 112.9°E	<i>PP</i> , Full of flowering	4/2	The Dairy of Xiangqi-Lou

6 <sup>a</sup> Abreviation of Species: *PB-Pyrus bretschneideri*; *PP-Prunus persica*; *SB-Salix babylonica*; *MH-Malus halliana*; *PSu-Paeonia*  
 7 *suffruticosa*; *PM-Prunus mume*; *PSa-Prunus salicina*; *PSe-Prunus serrulata*; *PA-Prunus armeniaca*; *CC-Cercis chinensis*.

8 <sup>b</sup> Format of date: month/day.

9 <sup>c</sup> Author of dairies: The Dairy of Tanyuan by Yang Enshou; The Dairy of Xiangqi-Lou by Wang Kaiyun; The Dairy of  
 10 Lianrangxianju, by Fan Zanchen; The Dairy of Returning South by Liu Han. The Dairy of Guo Songtao, and Fan Zanchen are  
 11 titled by author name. Manuscripts of all dairies were deposited in Beijing Library (National Library of China now), which the  
 12 Dairy of Guo Songtao had been reprinted and published in 1983 by Hunan People's publishing house, the Dairy of Xiangqi-Lou  
 13 and the Dairy of Tanyuan had been reprinted and published in 1997 and 2009 respectively by Yuelu publishing house.