

**Table S2 Occurrence list of the Early Jurassic climate-sensitive sediments in the GSB**

Section	Locations	Hori- zons	Members	Age	Sources
<b>Calcsols</b>					
A4	Shaping, Ya'an	16	Zhenzhuchong	Sinemurian	This work
A4	Shaping, Ya'an	10	Ma'anshan	Pleinsbachian	This work
A4	Shaping, Ya'an	4	Da'anzhai	Toarcian	This work
A5	Wujiaba, Zigong	>1	Ma'anshan	Pleinsbachian	SBG, 1980a
A6	Tanba, Hechuan	3	Ma'anshan	Pleinsbachian	This work
A6	Maliuping, Hechuan	2	Da'anzhai	Toarcian	This work
A8	Gaoxian, Dafang	>1	Da'anzhai	Toarcian	Zhang et al., 2016
A8	Gaoxian, Dafang	>1	Ma'anshan	Pleinsbachian	Zhang et al., 2016
A8	Gaoxian, Dafang	>1	Dongyuemiao	Sinemurian	Zhang et al., 2016
A8	Gaoxian, Dafang	>1	Zhenzhuchong	Sinemurian	Zhang et al., 2016
A9	Qizhai, Tianzhu	>2	Zhenzhuchong	Sinemurian	Li and Chen, 2010
A10	Hulukou, Weiyuan	2	Ma'anshan	Pleinsbachian	SBG, 1980a
A10	Hulukou, Weiyuan	2	Zhenzhuchong	Sinemurian	SBG, 1980a
A11	Liujiachang, Nanxi	>1	Da'anzhai	Toarcian	SBG, 1980a
A12	Shibei, Gongxian	>1	Da'anzhai	Toarcian	Liang et al., 2006
A13	Geyaoguan, Gulin	>1	Ma'anshan	Pleinsbachian	SBG, 1976
A15	Shuishikou, Yunyang	>1	Da'anzhai	Toarcian	Meng et al., 2005
A15	Shuishikou, Yunyang	>1	Dongyuemiao	Sinemurian	Meng et al., 2005
A16	Taiyuan, Fengdu	>1	Ma'anshan	Pleinsbachian	SBG, 1975
A17	Yaxi, Zunyi	>1	Ma'anshan	Pleinsbachian	Yang, 2015
A17	Yaxi, Zunyi	>1	Dongyuemiao	Sinemurian	Yang, 2015
<b>Micritic dolomitic sediments</b>					
A4	Shaping, Ya'an	4	Da'anzhai	Toarcian	This work
A5	Ziliujing, Zigong	>1	Da'anzhai	Toarcian	Peng, 2009
A10	Hulukou, Weiyuan	>1	Da'anzhai	Toarcian	SBG, 1980a
A11	Liujiachang, Nanxi	>1	Da'anzhai	Toarcian	SBG, 1980a
A14	Wangu, Dazu	>1	Da'anzhai	Toarcian	SBG, 1980a
A17	Laocheng, Zunyi	>1	Ma'anshan	Pleinsbachian	Mo and Yu, 1987
A17	Laocheng, Zunyi	>1	Dongyuemiao	Pleinsbachian	Mo and Yu, 1987
<b>Gypsum</b>					
A5	Wujiaba, Zigong	3	Da'anzhai	Toarcian	SBG, 1980a
A6	Maliuping, Hechuan	1	Da'anzhai	Toarcian	This work

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