1 **Ecosystem-specific patterns and drivers of global reactive iron**

2 **mineral-associated organic carbon**

3 Bo Zhao[1], Amin Dou[1], Zhiwei Zhang[1], Zhenyu Chen[1], Wenbo Sun[1], Yanli Feng[1],

4 Xiaojuan Wang[2], Qiang Wang[1,*]

5 *[1]State Key Laboratory of Herbage Improvement and Grassland Agro-ecosystems,*

6 *College of Pastoral Agriculture Science and Technology, Lanzhou University,*

7 *Lanzhou 730000, China*

8 *[2]Natural History Research Center, Shanghai Natural History Museum, Shanghai*

9 *Science & Technology Museum, 200127 Shanghai, China*

10 *[*]**Corresponding author:** Qiang Wang (Phone: +86-136-6933-7869; Email:

11 wqiang@lzu.edu.cn)

12 **Type of paper:** Research Paper; Text pages: 24; Figures: 7

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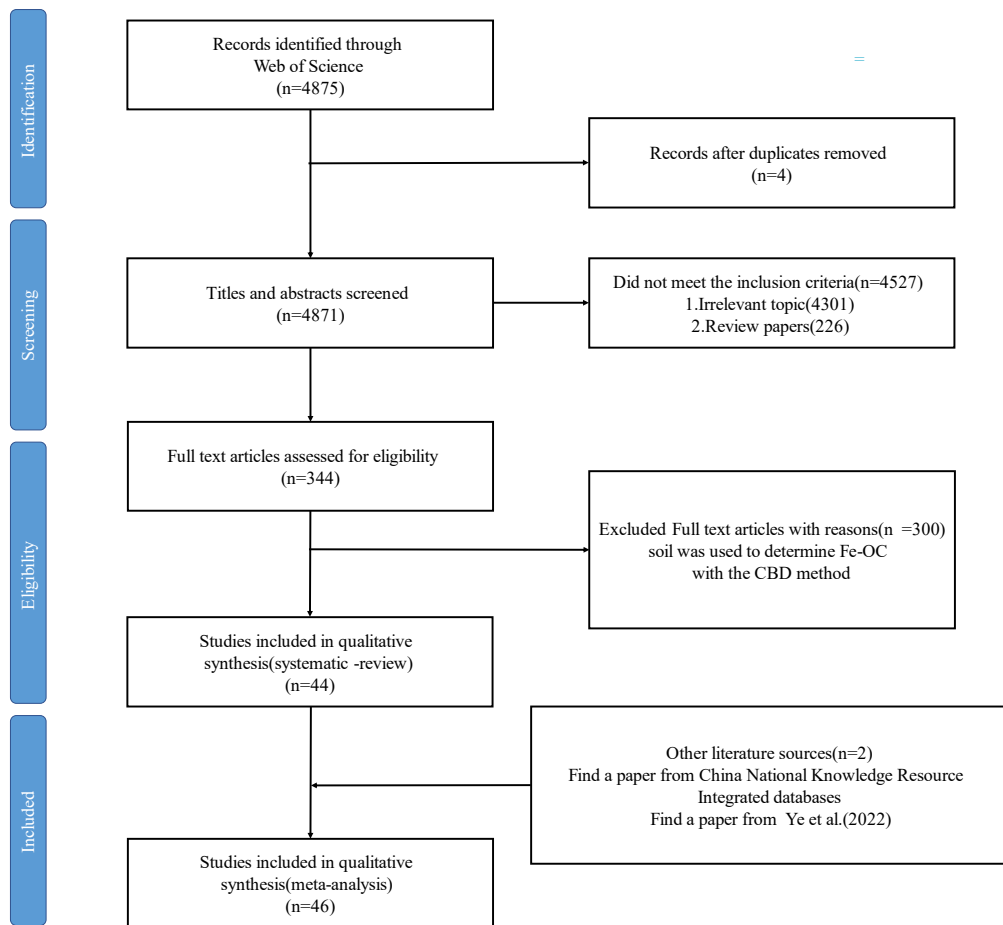
Figure S1. Preferred reporting items for systematic reviews and meta-analysis. See

details of literature search methods: (https://www.webofscience.com/wos/alldb/

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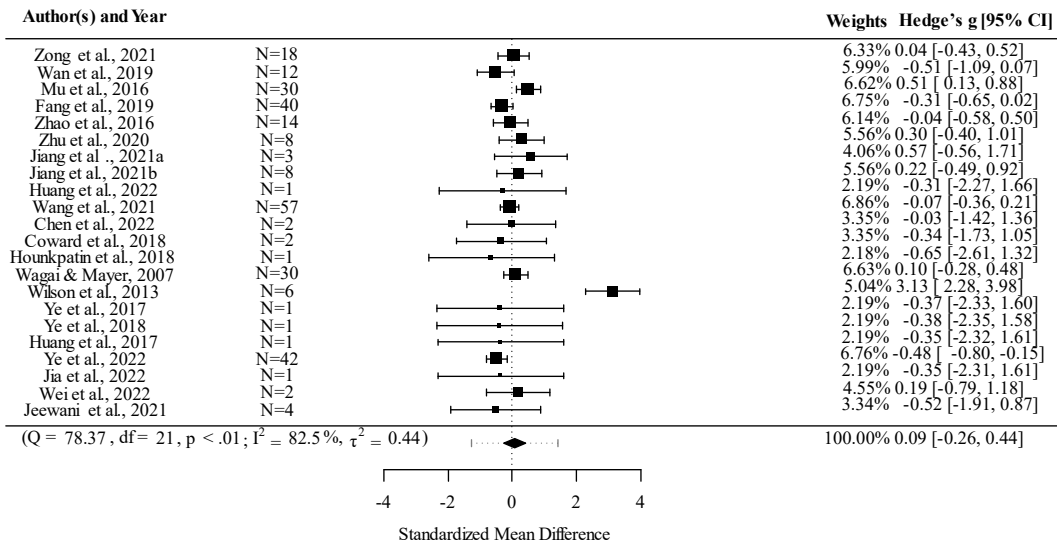
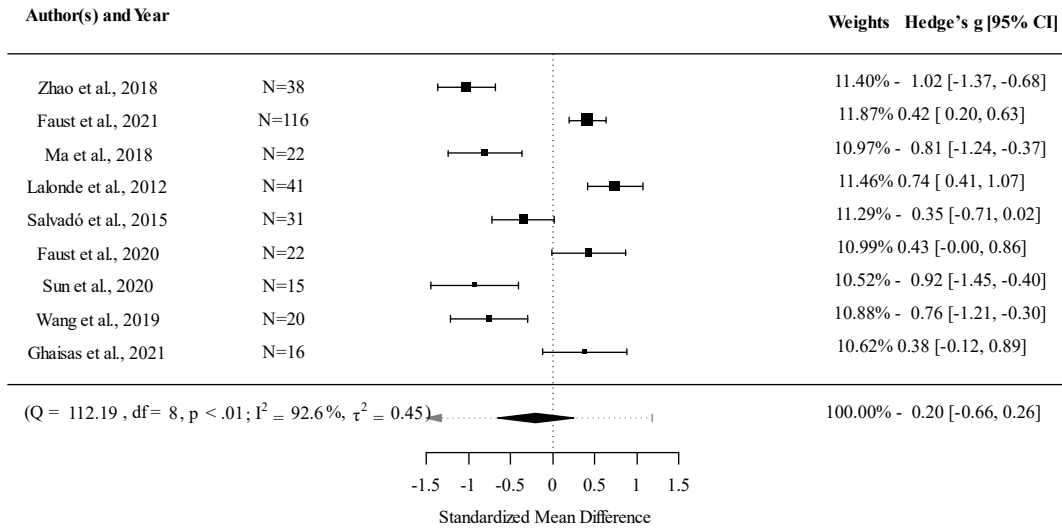
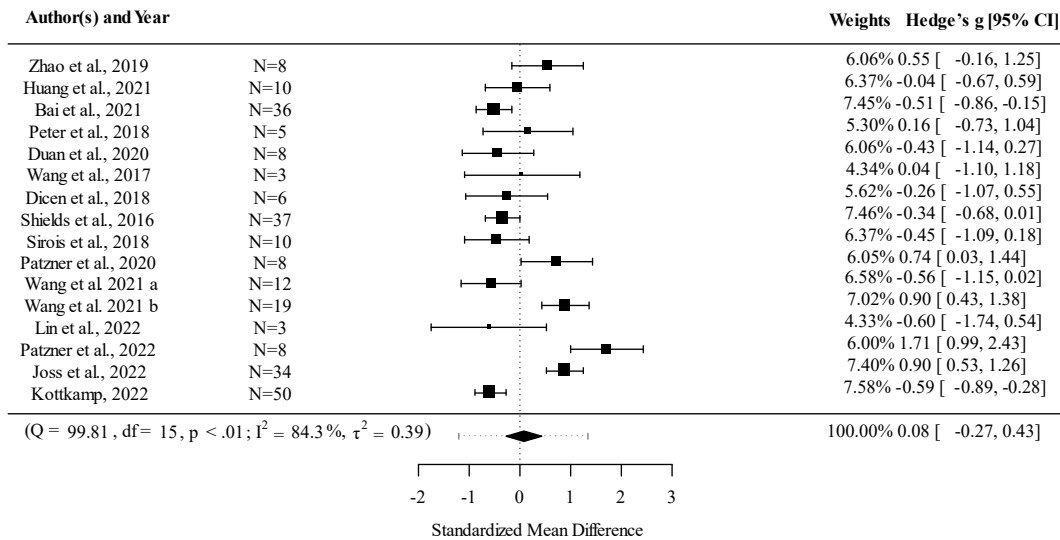

(a) Continent

(b) Marine

(c) Wetlands

18   **Figure S2.** The effect sizes and confidence interval of the small sample sizes (i.e., a

single published article) on Fe-OC contents in continent (a), marine (b) and wetlands (c), respectively. The value of the coordinate corresponds to the effect sizes, which is calculated by using the standardized mean difference between the control group and the treatment group. The total samples classified by continent, marine and wetlands are the control group, and the samples of a single case are the treatment group. The square size of each treatment group corresponds to the relative sample size. The horizontal line extending from each grid represents the confidence interval. The weights and confidence intervals of each group of effects are shown on the right. The position of each grid means that the Fe-OC of each treatment group is either higher (to the right of the dotted line) or lower (to the left of the dotted line) than that of the control group. The vertical dotted line is the zero effect quantity, and the confidence interval that does not overlap with the zero effect quantity is significantly different from the Fe-OC of the control group. Partial effects and their confidence intervals do not overlap with zero effects. The letter N represents the number of samples.