

# Shuang Song, Ph.D.

✉ songshgeo@gmail.com

🌐 <http://cv.songshgeo.com/>



## Employment History

2023 – ···· 📌 **Postdoctoral Researcher.** Beijing Normal University.

## Education

2018 – 2023 📌 **Ph.D. of Physical Geography,** Beijing Normal University.

Thesis title: *Evolution of human-water relationships: taking the Yellow River Basin in China as an example.*

2015 – 2018 📌 **2nd Major of History Study,** Sun Yat-Sen University.

2014 – 2018 📌 **B.S. of Physical Geography,** Sun Yat-Sen University.

Thesis title: *Test of Human-Flood Model: Taking floodplain of the Yellow River in Ningxia as an Example.*

## Research Publications

### Preprints

1 📌 **S. Song,** S. Wang, C. Jiao, and E. J. Mantilla, *ABSESpy: An agent-based modeling framework for social-ecological systems*, en, 2023.

### Journal Articles

1 📌 C. Jiao, S. Wang, **S. Song,** and B. Fu, “Long-term and seasonal variation of open-surface water bodies in the Yellow River Basin during 1990–2020,” en, *Hydrological Processes*, vol. 37, no. 3, e14846, 2023, ISSN: 1099-1085. 🔗 DOI: 10.1002/hyp.14846. (visited on 11/24/2023).

2 📌 **S. Song,** S. Wang, X. Wu, *et al.*, “Identifying regime transitions for water governance at the Yellow River Basin, China,” en, *Water Resources Research*, 2023.

3 📌 **S. Song,** H. Wen, S. Wang, X. Wu, G. S. Cumming, and B. Fu, “Quantifying the Effects of Institutional Shifts on Water Governance in the Yellow River Basin: A Social-ecological System Perspective,” en, *Journal of Hydrology*, 2023.

4 📌 P. Chen, S. Wang, **S. Song,** *et al.*, “Ecological restoration intensifies evapotranspiration in the Kubuqi Desert,” en, *Ecological Engineering*, vol. 175, p. 106504, Feb. 2022, ISSN: 09258574. 🔗 DOI: 10.1016/j.ecoleng.2021.106504. (visited on 12/09/2021).

- 5 **S. Song**, S. Wang, X. Wu, Y. Huang, and B. Fu, “Decreased virtual water outflows from the Yellow River basin are increasingly critical to China,” English, *Hydrology and Earth System Sciences*, vol. 26, no. 8, pp. 2035–2044, Apr. 2022, ISSN: 1027-5606. [DOI: 10.5194/hess-26-2035-2022](https://doi.org/10.5194/hess-26-2035-2022). (visited on 04/26/2022).
- 6 **S. Song**, H. Wen, S. Wang, X. Wu, and G. S. Cumming, “Approaching causal linkages between SES structures and outcomes of the Yellow River Basin, China,” en, *Ecology and Society*, p. 15, 2022.
- 7 X. Wu, B. Fu, S. Wang, *et al.*, “Decoupling of SDGs followed by re-coupling as sustainable development progresses,” en, *Nature Sustainability*, Mar. 2022, ISSN: 2398-9629. [DOI: 10.1038/s41893-022-00868-x](https://doi.org/10.1038/s41893-022-00868-x). (visited on 04/04/2022).
- 8 奕. 王, 焱. 刘, 爽. 宋, 莹. 姚, and 伯. 傅, “社区尺度社会——生态系统适应途径述评,” zh-CN, *地理科学进展*, vol. 41, no. 5, pp. 935–944, 2022, ISSN: 1007-6301. (visited on 11/24/2023).
- 9 D. Gao, S. Wang, Z. Li, *et al.*, “Threshold of vapour–pressure deficit constraint on light use efficiency varied with soil water content,” en, *Ecohydrology*, May 2021, ISSN: 1936-0584, 1936-0592. [DOI: 10.1002/eco.2305](https://doi.org/10.1002/eco.2305). (visited on 06/07/2021).
- 10 Z. Li, S. Wang, **S. Song**, Y. Wang, and W. Musakwa, “Detecting land degradation in Southern Africa using Time Series Segment and Residual Trend (TSS-RESTREND),” en, *Journal of Arid Environments*, vol. 184, p. 104 314, Jan. 2021, ISSN: 01401963. [DOI: 10.1016/j.jaridenv.2020.104314](https://doi.org/10.1016/j.jaridenv.2020.104314). (visited on 06/07/2021).
- 11 **S. Song**, J. Du, Q. Wu, M. Ni, Y. Wang, and Y. Zhang, “The responses of *Spinifex littoreus* to sand burial on the coastal area of Pingtan Island, Fujian Province, South China,” en, *Écoscience*, pp. 1–10, Feb. 2021, ISSN: 1195-6860, 2376-7626. [DOI: 10.1080/11956860.2021.1888523](https://doi.org/10.1080/11956860.2021.1888523). (visited on 06/07/2021).
- 12 **S. Song**, S. Wang, B. Fu, *et al.*, “Improving representation of collective memory in socio-hydrological models and new insights into flood risk management,” en, *Journal of Flood Risk Management*, vol. 14, no. 1, Mar. 2021, ISSN: 1753-318X, 1753-318X. [DOI: 10.1111/jfr3.12679](https://doi.org/10.1111/jfr3.12679). (visited on 06/07/2021).
- 13 S. Wang, **S. Song**, J. Zhang, X. Wu, and B. Fu, “Achieving a fit between social and ecological systems in drylands for sustainability,” English, *Current Opinion in Environmental Sustainability*, vol. 48, pp. 53–58, Feb. 2021, ISSN: 1877-3435. [DOI: 10.1016/j.cosust.2020.09.008](https://doi.org/10.1016/j.cosust.2020.09.008).
- 14 Y. Yao, B. Fu, Y. Liu, Y. Wang, and **S. Song**, “The contribution of ecosystem restoration to sustainable development goals in Asian drylands: A literature review,” en, *Land Degradation & Development*, ldr.4065, Aug. 2021, ISSN: 1085-3278, 1099-145X. [DOI: 10.1002/ldr.4065](https://doi.org/10.1002/ldr.4065). (visited on 09/01/2021).
- 15 奕. 王, 焱. 刘, 爽. 宋, and 伯. 傅, “水—粮食—能源—生态系统关联研究进展,” 中文; *地球科学进展*, vol. 36, no. 07, pp. 684–693, 2021, ISSN: 1001-8166.
- 16 **S. Song**, S. Wang, B. Fu, *et al.*, “Sediment transport under increasing anthropogenic stress: Regime shifts within the Yellow River, China,” English, *Ambio*, vol. 49, no. 12, pp. 2015–2025, Dec. 2020, ISSN: 0044-7447. [DOI: 10.1007/s13280-020-01350-8](https://doi.org/10.1007/s13280-020-01350-8).

- 17 M. Zhang, S. Wang, B. Fu, *et al.*, “Structure Disentanglement and Effect Analysis of the Arid Riverscape Social-Ecological System Using a Network Approach,” *en*, *Sustainability*, vol. 11, no. 19, p. 5159, Sep. 2019, ISSN: 2071-1050. [DOI: 10.3390/su11195159](#). (visited on 06/07/2021).
- 18 爽.宋, 帅.王, 伯.傅, 海.陈, 焱.刘, and 文.赵, “社会—生态系统适应性治理研究进展与展望,” 中文; *地理学报*, vol. 74, no. 11, pp. 2401–2410, 2019, ISSN: 0375-5444.
- 19 显.杨, 建.杜, 晶.秦, 志.陈, 林.杨, and 爽.宋, “福建平潭岛海岸不同演化阶段草丛沙堆表面老鼠  $\square$ 叶水势日变化特征,” 中文; *应用生态学报*, vol. 28, no. 10, pp. 3260–3266, 2017, ISSN: 1001-9332. (visited on 12/09/2021).

## Conference Proceedings

- 1 S. Song, S. Wang, and B. Fu, “Institutional impacts on the evolution of the Yellow River, China: A perspective from socio-hydrological modelling,” *en*, in *EGU2023*, Vienna, Austria: Copernicus Meetings, Feb. 2023. [DOI: 10.5194/egusphere-egu23-4221](#). (visited on 11/23/2023).
- 2 S. Song, S. Wang, B. Fu, *et al.*, “Sediment Transport under Increasing Anthropogenic Stress: Regime Shifts Within the Yellow River, China,” *en*, in *AGU Fall Meeting 2019*, San Francisco, USA: AGU, Dec. 2019. (visited on 11/23/2023).

## Skills

Languages	Strong reading, writing, and speaking competencies in English, Mandarin Chinese, poor German, and Spanish.
Coding	Python, R, SQL, $\LaTeX$ , ...
Databases	MySQL, PostgreSQL.
Misc.	Academic research, developer, travel writer.
GIS.	QGIS, ArcGIS.

## Miscellaneous Experience

Available on Request.

## References

Available on Request