Sixth International Workshop on Biological Soil Crusts

(First Announcement)

Drylands cover approximate 45 % of the terrestrial surface and support more than two billion people, and now they are the frontline of global efforts to combat desertification and ecosystem degradation—processes accelerated by climate change and unsustainable land management. Biological soil crusts (biocrusts) function as ecosystem engineers that stabilize soils, regulate hydrology, fix carbon and nitrogen, and support successional dynamics essential to dryland health. Following the success of five previous workshops, the 6th International Workshop on Biological Soil Crusts (BIOCRUST 6) will be held in Yangling, China, on 14–20 September of 2026, hosted by the State Key Laboratory of Soil and Water Conservation and Desertification Control and the College of Soil & Water Conservation Science and Engineering, Northwest A&F University. The Workshop will provide an international forum for (i) presenting the state of art in biocrust biodiversity, physiology, and ecosystem functioning; (ii) for assessing biocrusts-based strategies for land restoration and climate-change mitigation; and (iii) for fostering global collaboration among scientists, land managers, and policy stakeholders.

We warmly welcome colleagues from around the world to join us for this international workshop. Most distinguished leaders and highly activated young scientists of the global biocrust community will be invited to deliver plenary lectures and engage in lively scientific exchange.

I. Theme and Topics

The theme of the workshop is "Toward a Healthy Ecosystem".

Academic exchanges will focus on the following topics of biocrust science:

- Structure and Function in Ecosystems
- Disturbance and Restoration
- Diversity, Ecology, and Biogeography
- Interaction with Vascular Plants and Other Organisms
- Taxonomy and Physiology of Biocrust Constituents

- Effects of Global Environmental Change
- Landscape Function and Management
- Monitoring, Mapping, and Modelling
- Ecosystem Services and Sustainable Development Goals
- Biocrusts and Teaching/Outreach
- Challenges in Biocrust Study
- New Techniques or Methods for Biocrust Research
- AI Applications or Interdisciplinary Convergence

II. Organizational Structure

Hosted by:

State Key Laboratory of Soil and Water Conservation and Desertification Control, Northwest A&F University

College of Soil and Water Conservation Science and Engineering, Northwest A&F University

Co-organizers:

Shapotou Desert Research and Experiment Station, Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences

State Key Laboratory of Ecological Security and Sustainable Development in Arid Lands, Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences

III. Time and Venue

1. Time: September 14-20, 2026

September 14: On-site registration (09:00 - 23:00)

September 15-18: Academic Exchanges Sessions (plenary talks, thematic sessions, and poster presentations)

September 19-20: Field excursion (three options):

- (a) Ansai Research Station of Soil and Water Conservation: Observing biocrust development and ecosystem restoration outcomes on the Loess Plateau.
- (b) Shapotou Desert Research and Experiment Station: Examining biocrust resilience and ecosystem recovery in sandy desert ecosystems.

- (c) Louguantai Taoist Cultural Site: Exploring Taoist heritage, the Four Treasures and ecological conservation efforts of Qinling Mountain.
- 2. Venue: Northwest A&F University, Yangling District, Xianyang City, Shaanxi Province, China

IV. Registration

Please register online through the official workshop website, which will be launched in late November of 2025.

V. Abstracts and Posters

Participants are welcome to submit abstracts and present posters. All accepted abstracts will be unofficially published in a digital abstract compilation. Poster presenters will be provided with poster boards with no additional charge. The abstract and poster submissions should be submitted through the workshop website (URL to be provided).

VI. Transportation and Accommodation

1. Transportation Guide:

By Air: Xi'an Xianyang International Airport is the nearest airport. An airport shuttle service is available to the Administrative Zone of Northwest A&F University (approximate 1.5 hours). The airport pick-up service will be provided upon request for international participants.

By High-Speed Rail: The participants should arrive at Xi'an North Railway Station, then take a high-speed train to Yangling South Railway Station. From there, you can take the "Northwest A&F University Education Special Line" bus (northbound toward the Science Building) and get off at "Northwest A&F University Administrative Zone Station." As an option, you can also take a taxi from Yangling South Railway Station which only need about 10 minutes.

2. Accommodation

A range of accommodation options will be available (35–60 USD per night). Registered participants can reserve their rooms through the workshop website.

We will continue to update the travel and accommodation information on the official website next announcements, to assist with your planning and ensure a smooth arrival.

VII. Contact Information

Workshop Website: Details will be available on the official website, which will be launched in late November of 2025.

Contacts: Yunge Zhao, Liqian Gao, Weiqiang Dou

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For further information, please feel free to contact us via email.

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