Data in Brief ∎ (∎∎∎∎) ∎∎∎–∎∎∎

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Data Article

Dataset of pollen morphological traits of 56 dominant species among desert vegetation in the eastern arid central Asia

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ABSTRACT

The data presented in this article are related to the research article entitled "Pollen spectrum, a cornerstone for tracing the evolution of the eastern central Asian desert" (JQSR 5260) (Lu et al., 2018) [1]. In this paper, we supply a dataset, which provides a descriptive and general summary of pollen characteristic of desert dominant species in the eastern arid central Asia (ACA). The other important component is the illustration on pollen grains traits under light microscopy (LM) and scanning electron microscopy (SEM). Pollen grains of 56 species are extracted from voucher specimens from the PE herbarium at the Institute of Botany. It is worth noting that these species own special distribution patterns in China. The distribution maps are plotted using the Google Maps and the species distribution data at the county level supplied by the Chinese Virtual Herbarium (http://www.cvh.ac.cn/).

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Specifications Table

Subject area	*Botany*
More specific subject area	*Palynology and Morphology of desert dominant plant species.*
Type of data	*Tables of the voucher specimen list and pollen morphological characters* *Illustrations of microscope images for pollen grains* *Distribution maps for these species*
How data was acquired	*Microscope, SEM* *Field investigations and collections*
Data format	*Tables in MS Word format *.doc* *Illustrations of microscope images in 32-bit RGB JPG (300dpi)* *Distribution maps in 32-bit RGB JPG (300dpi)*
Experimental factors	*Pollen grains are acetolyzed by the standard method and fixed in glycerin jelly.*
Experimental features	*Standard procedures are followed for light microscopy and scanning electron microscopy.*
Data source location	*China*
Data accessibility	*The data are available with this article*
Related research article	*K.Q. Lu, G. Xie, M. Li, J.F. Li, A. Trivedi, D. K. Ferguson, Y.F. Yao, Y.F. Wang, Pollen spectrum, a cornerstone for tracing the evolution of the eastern central Asian desert, Quat. Sci. Rev. in press.*

Value of the Data

- The dataset includes pollen morphological characteristics and distribution patterns of 56 dominant species among the desert vegetation in eastern ACA.
- The pollen descriptions with related illustrations could be used to identify pollen grains at the generic or species level.
- The distribution maps could be used to interprete distribution patterns of 56 dominant species among the desert vegetation in eastern ACA.

1. Data

The dataset of this article provides information on the diversity of pollen features of the dominant species in the eastern ACA desert and the distribution patterns of these species in China. Plates 1–11 and Table 1 show the diversity of pollen morphology. Figs. 1–7 present the distribution patterns of the 56 species in China. The pollen descriptions are provided in Appendix A.

1.1. Pollen images of the 56 dominant species in the eastern arid Central Asia desert

Q3 See plates Plates 1–11.

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