

Supplementary Materials for

Critical transitions in Chinese dunes during the past 12,000 years

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The PDF file includes:

Fig. S1. Typical dune stratigraphic sections at individual sites from the dune fields of northern China.

Fig. S2. Coexisting active and stabilized dunes in northern China during the past 12,000 years. Legends for data files S1 to S3

Other Supplementary Material for this manuscript includes the following:

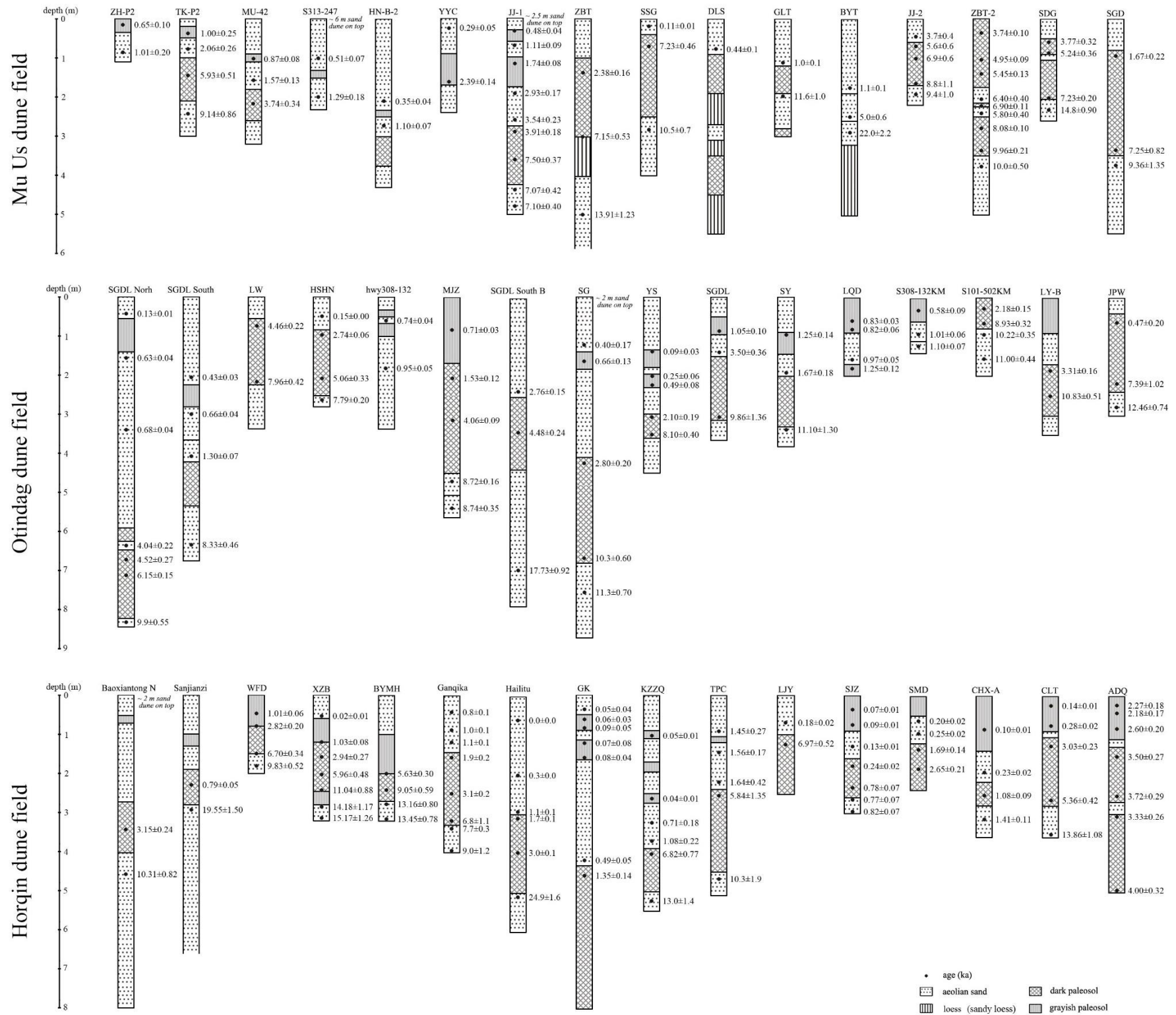
(available at advances.sciencemag.org/cgi/content/full/6/9/eaay8020/DC1)

Data file S1 (Microsoft Excel format). List of study sites from the dune fields of northern China.

Data file S2 (Microsoft Excel format). Dataset of dune chronologies in the dune fields of northern China.

Data file S3 (Microsoft Excel format). The sites where sand deposition or soil development is recorded during each time interval of the past 12,000 years.

Fig. S1



Supplementary figures

Fig. S1. Typical dune stratigraphic sections at individual sites from the dune fields of northern China. Each column indicates individual stratigraphic section with independent age determinations originally sampled from the Mu Us, Otindag and Horqin dune field. The name and ages of the depositional strata are labeled in every column. Please refer to Supplementary Data files 1 and 2 for detailed information and original references for these dune stratigraphic sections.

Fig. S2

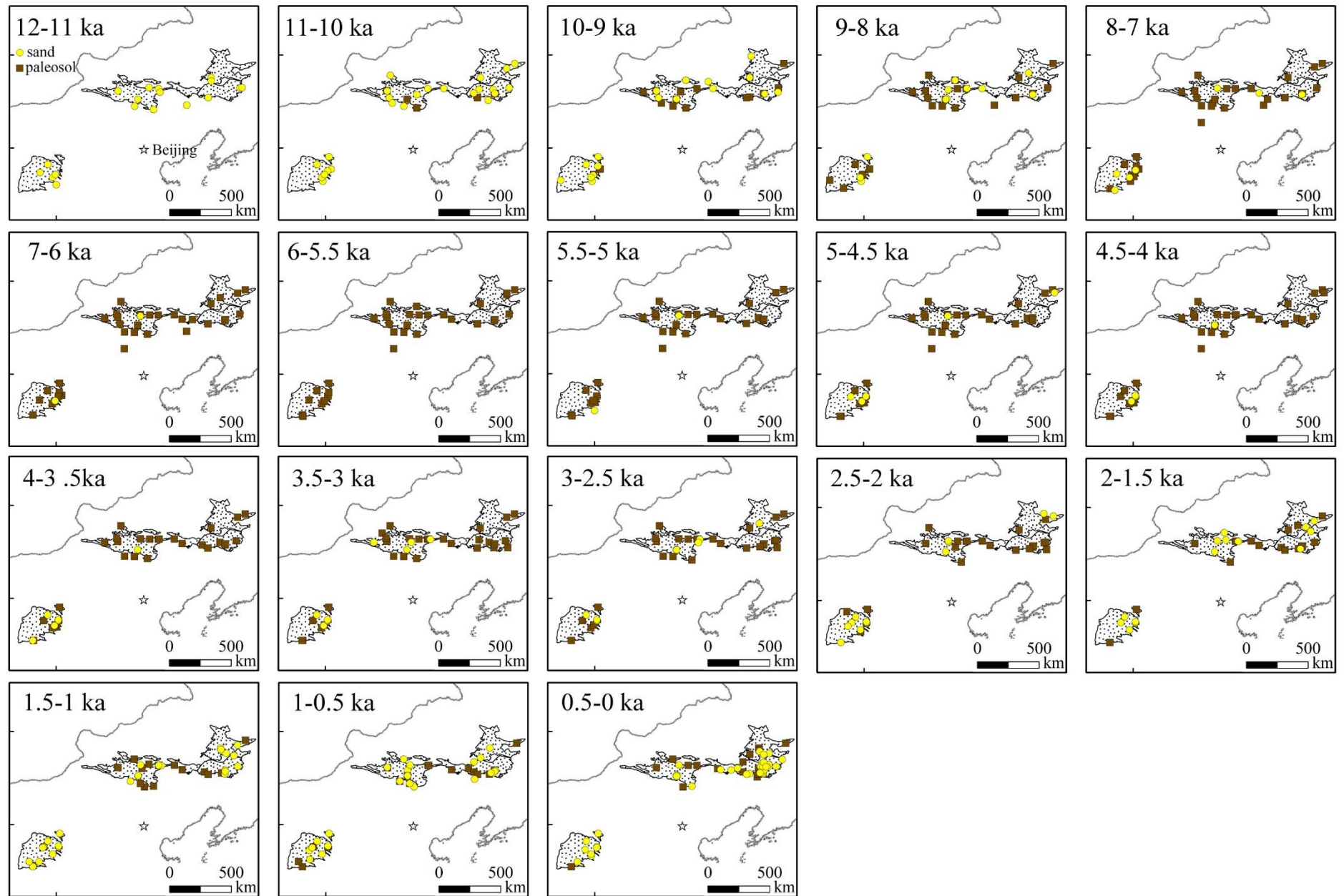


Fig. S2. Coexisting active and stabilized dunes in northern China during the past 12,000 years. Different timeslices show spatial distribution pattern of dune activity at individual sites. The paleosol/sand indicates stabilized/active state of the dunes respectively.

Data file S1. List of study sites from the dune fields of northern China. (MS Excel spreadsheet)

Data file S2. Dataset of dune chronologies in the dune fields of northern China. This dataset includes 144 dune sections with 531 independent ages. More than half of the sections and ages synthesized in the dataset were primarily investigated by us during long-term field and laboratory study from 2002 to 2018. Ten sections with thirty ages in Mu Us dune field were newly investigated. The geographic locations and original references of all these sites were listed in Data file S1. (MS Excel spreadsheet)

Data file S3. The sites where sand deposition or soil development is recorded during each time interval of the past 12,000 years. (MS Excel spreadsheet)