

Supplementary Materials for

No high Tibetan Plateau until the Neogene

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The PDF file includes:

Fig. S1. *S. tibetensis* T. Su et Z.K. Zhou sp. nov.

Fig. S2. Stratigraphy of the Dingqing Formation at Dayu, Lunpola Basin.

Fig. S3. Late Paleogene model elevations (meters) showing the different topographic scenarios for the QTP region.

Legends for tables S1 to S3

Other Supplementary Material for this manuscript includes the following:

(available at advances.sciencemag.org/cgi/content/full/5/3/eaav2189/DC1)

Table S1 (Microsoft Excel format). Fossil records of palms around the world.

Table S2 (Microsoft Excel format). Morphological comparisons between fossils from Lunpola Basin and modern palm genera.

Table S3 (Microsoft Excel format). Climate ranges of 12 living genera that show the closest morphological similarity to *S. tibetensis* T. Su et Z.K. Zhou sp. nov.

Supplementary Materials

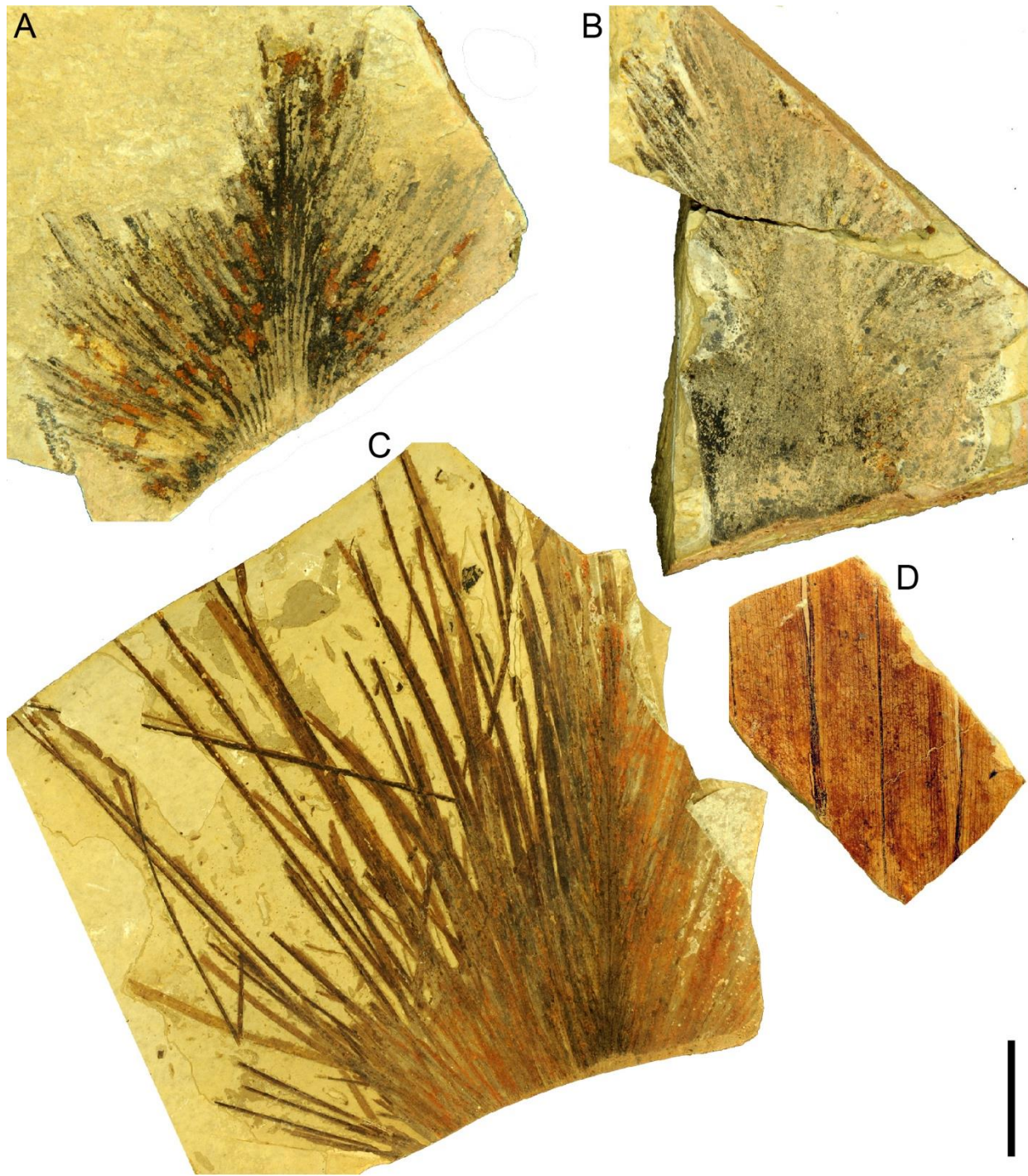


Fig. S1. *S. tibetensis* T. Su et Z.K. Zhou sp. nov. A.-C. fragments of leaf blades with costae, D. leaf blade showing the venation. Specimen numbers: A. XZDY2-0201; B. XZDY2-0202; C. XZDY3-0001; D. XZDY1-0071. Scale bar: A., B., and D. = 2 cm, C. = 4 cm. Photo Credit: Tao Su, Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences.

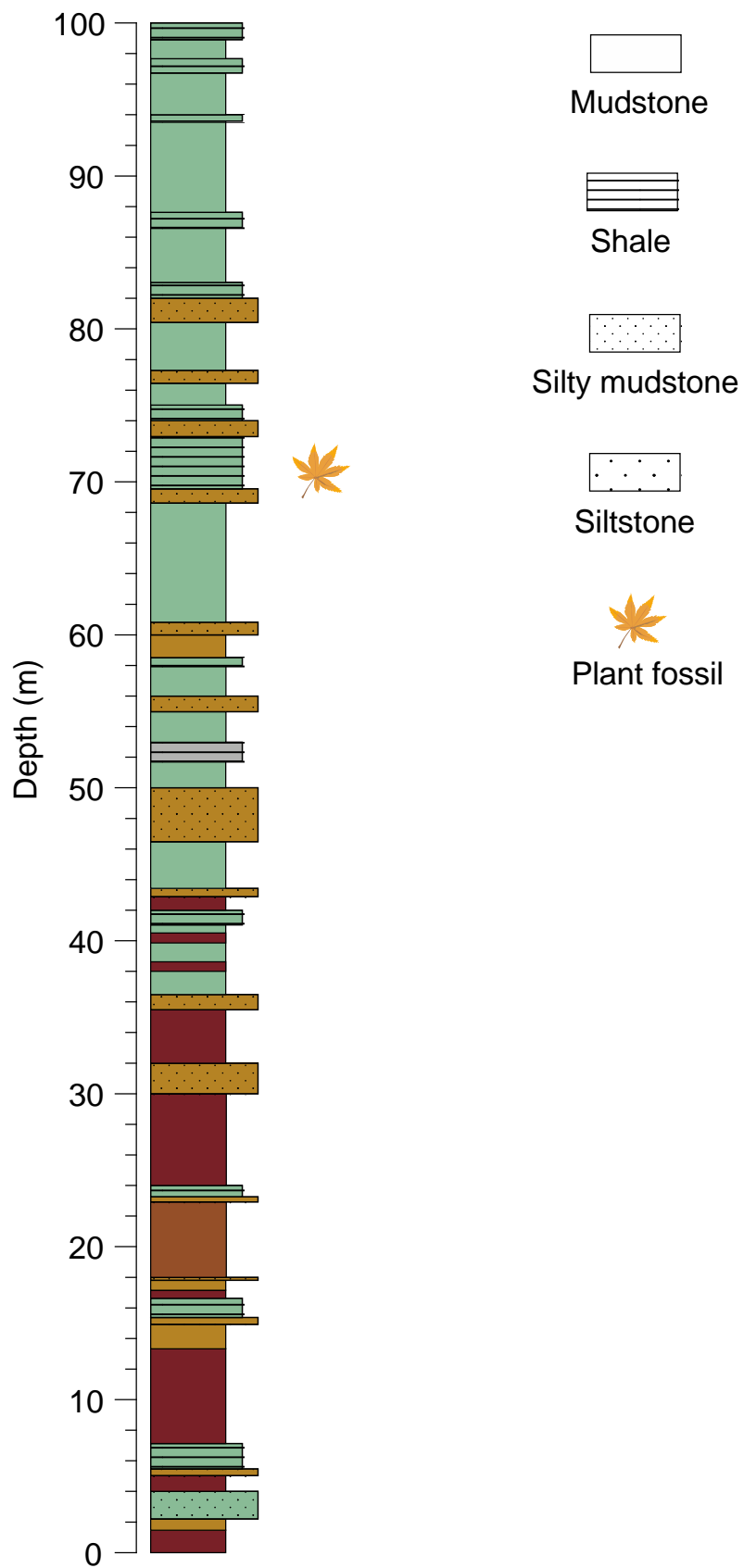
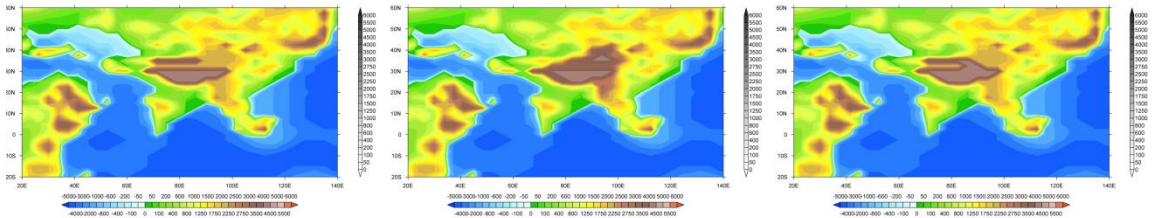


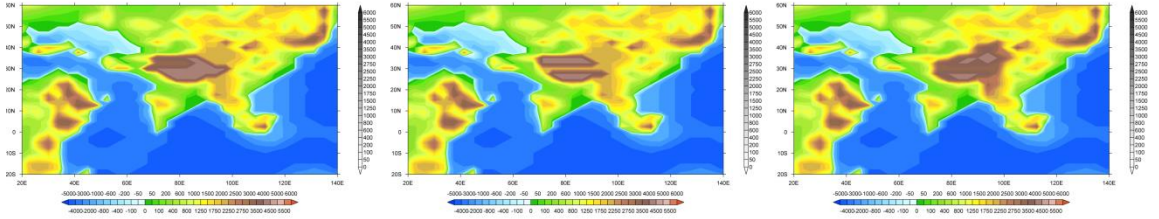
Fig. S2. Stratigraphy of the Dingqing Formation at Dayu, Lunpola Basin.



V1

V2

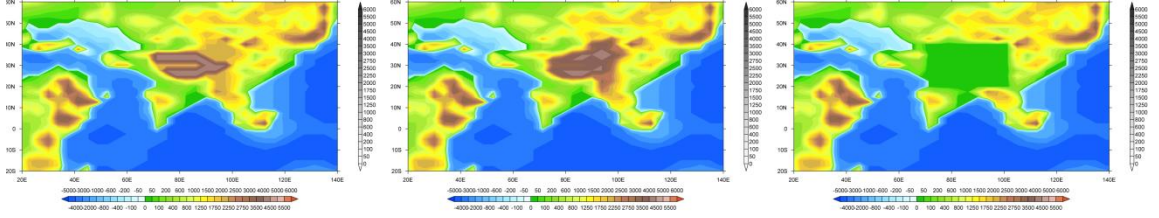
V3



V4

V5

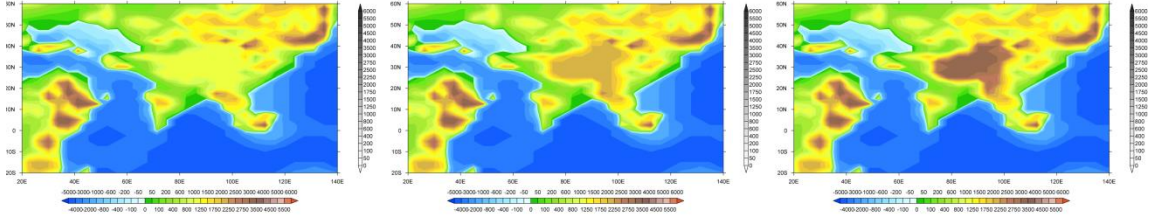
V6



V7

V8

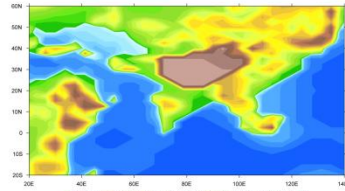
P0



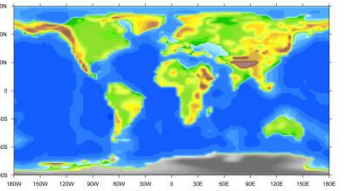
P1

P2

P3



P4



G

Fig. S3. Late Paleogene model elevations (meters) showing the different topographic scenarios for the QTP region. Details for valley (V1–V8) and plateau (P0–P4) scenarios are given in the text and Table 1. G shows global topography and bathymetry used in the spin up phase.

Table S1. Fossil records of palms around the world. Data are derived from Cenozoic Angiosperm Database (<http://www.fossil-cad.net>).

Table S2. Morphological comparisons between fossils from Lunpola Basin and modern palm genera.

Table S3. Climate ranges of 12 living genera that show the closest morphological similarity to *S. tibetensis* T. Su et Z.K. Zhou sp. nov.