Cover Illustration: Stem cross section of *Pereskia guamacho*, a member of the eight-species cactus lineage hypothesized to be sister to the remaining 1800 or so species of Cactaceae. *Pereskia guamacho* is a leafy, dry-forest tree lacking many anatomical traits, such as stem succulence, mucilage cells, delayed periderm, and stem stomata, that are highly conserved in most other cacti. Rather than the evolution of a single “key innovation” early in the cactus lineage, lability of many or all of these traits in the ancestors of Cactaceae, as evidenced by high homoplasy in their outgroups, may have facilitated the morphological leap to a water-storing, photosynthetic stem. This hand section (ca. 200 μM) was stained in cresyl violet acetate and mounted in calcium chloride. See Ogburn and Edwards—Anatomical variation in Cactaceae and relatives: Trait lability and evolutionary innovation on pp. 391–408. Photo credit: R. Matthew Ogburn.

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Abbreviations
Miscellaneous: AFLP, amplified fragment length polymorphisms; a.s.l., above sea level; bp, base pair; BP, before present; BSA, bovine serum albumin; cpDNA, chloroplast DNA; CTAB, hexadecyltrimethylammonium bromide; cv., cultivar; ddH2O, double-distilled water; dNTP, deoxyribonucleotide E.C., Enzyme Commission; EDTA, ethylene diamine tetra-acetic acid; f. sp., forma specialis; indels, insertions and deletions; ITS, internal transcribed spacer; LM, light microscopy; mya, million years ago; PAGE, polyacrylimide gel electrophoresis; PCR, polymerase chain reaction; RAPD, random amplified polymorphic dimorphism; SDS, sodium dodecyl sulfate; SEM, scanning electron microscopy; s.l., sensu lato; s.s., sensu stricto; subs., subspecies; TEM, transmission electron microscopy

Genetics: A, mean number of alleles per locus; D, mean genetic distance; CI, consistency index; F, fixation index; FIt, total inbreeding; FST, genetic diversity among populations; FIS, inbreeding within populations; GST, total genetic diversity within populations; He, Hardy–Weinberg expected heterozygosity; Ho, observed heterozygosity; MP, most parsimonious tree; n, individual chromosome number; Nm, mean number of migrants; RI, retention index; x, base chromosome number

Statistics and math: ANOVA, analysis of variance; CV, coefficient of variation; df, degrees of freedom; N, number of individuals; p, probability; P, level of significance; Pp, percentage of polymorphic loci; PCA, principal components analysis; r, coefficient of correlation; SE, standard error; SD, standard deviation