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Making Tempskya visible: plant paleoart as a testable reconstruction of a Cretaceous false-trunk fern

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Plant paleoart often turns fossil plants into scenery, although extinct plants can be visually and conceptually as unfamiliar as any animal. *Tempskya*, a Cretaceous fern known mainly from silicified false trunks, is a striking example: its body was composed of numerous dichotomising axes, petioles and a dense mantle of adventitious roots, yet widely reproduced reconstructions still follow models developed more than 75 to 100 years ago. This contribution presents a revised reconstruction of *Tempskya* as a case study in scientifically grounded plant paleoart.

The reconstruction combines observations from old and newly examined specimens with biomechanical comparisons to extant rhizomatous ferns such as *Davallia* and *Phlebodium*. It visualises the plant not as a conventional tree fern, but as a modular, root-supported, partly self-renewing organism with foliage probably concentrated in the upper crown and an outward-thinning root mantle. Special attention is given to decisions that must be made when translating incomplete fossil evidence into an image: frond size, trunk outline, living versus decayed tissues, habitat, and the degree of visual uncertainty.

By making these assumptions explicit, the reconstruction treats paleoart as a transparent scientific hypothesis rather than a final picture. *Tempskya* thus becomes a central character in Cretaceous wetland ecosystems and illustrates how plant paleoart can communicate morphology, ecology and uncertainty to both scientific and public audiences.

Author: LIES, Jörn**Presenter:** LIES, Jörn**Session Classification:** Plant Paleoart: Perspectives and promises**Track Classification:** Plant Paleoart: Perspectives and promises