ENCEPHALARTOS RELICTUS: A NEW SPECIES FROM SOUTHERN AFRICA

In a continuing attempt to document biodiversity in the African Zamiaceae, an evaluation of material from Swaziland (Hurter 1993) has led to the conclusion that there exists a distinct undescribed species, that may already be extinct in the wild. Due to the fact that no new material has been forthcoming in more than 20 years it was decided that this relict species should be described for posterity.

Encephalartos relictus *P.J.H.Hurter*, sp. nov., *E. heenanii* R.A.Dyer foliis rigidis caesiis similis, sed pinnis linearo-lanceolatis adscendentis inflexis, microsporophyllis ovatis tomentosis, et habitatione nemorali differt.

TYPE.—Swaziland: Siteki, Farm Muti-Muti, (leaf and part of male cone), 15-03-1971, *J.J.P. du Preez s.n.* (*PRE33123*, holo.).

Plant arborescent, suckering from base. *Trunk* up to 2.5 m long, 400–450 mm diam., leaf bases persistent, crown and cataphylls tomentose, golden brown, becoming subglabrous with age. *Leaves* numerous in dense, spreading crown, rigid, subsessile, waxy blue-grey in colour, 1.0–1.2(–1.4) m long, pinnae ascending. *Petiole* apparent, woolly, becoming subglabrous with age, except pulvinus. *Rachis* straight, woolly, becoming subglabrous with age, apex slightly incurved. *Pinnae* woolly, becoming glabrous with age, entire, veins raised abaxially, margins slightly thickened, inflexed, directed towards apex of leaf at an angle of ± 60° to rachis, opposing leaflets inflexed, set at an angle of ± 40° to each other and orientated succubously, proximal pinnae gradually reduced to a few prickles. *Median leaflets* oblong-lanceolate, pungent, 200–250 × 14–17 mm, margins entire, 20–25 prominent veins abaxially. *Strobili* glabrous, scale facets smooth, light greenish yellow. *Megastrobili* unknown. *Microstrobili* 1–3 per trunk, subconical, 200–240 × 120–150 mm, stalked on peduncle 30–50 mm long. *Median microsporophylls* spreading, more or less at right angles to axis, lamina oblong, tapering to base, ± 35–40 mm long, 30–35 mm wide and 10–15 mm high, margins contracted to pedicel, bulla with terminal facet projecting slightly as drooping lip-like structure, edges verrucose, microsporangia separated from lateral margins. Figure 5.

Diagnostic features and affinities

E. relictus superficially resembles *E. heenanii* R.A.Dyer (Dyer 1972), on account of its stiff waxy blue-grey leaves and pinnae with the veins prominently raised abaxially. However, it differs markedly from *E. heenanii* in morphology, habit and habitat. *E. relictus* used to occur in mixed deciduous woodland (Figure 6), whereas *E. heenanii* occurs in high rainfall, high altitude, sour grassland. The important morphological differences between the two species are summarized in the following table.

TABLE 1.—Differences between *E. heenanii* and *E. relictus*

	E. heenanii	*E. relictus*
Pinnae	ovate-lanceolate markedly deflexed from rachis	oblong-lanceolate inflexed
Leaves	inflexed, crown wine-glass-shaped	straight, crown spreading
Microstrobili	ovate, tomentose	subconical, glabrous (Figure 7)

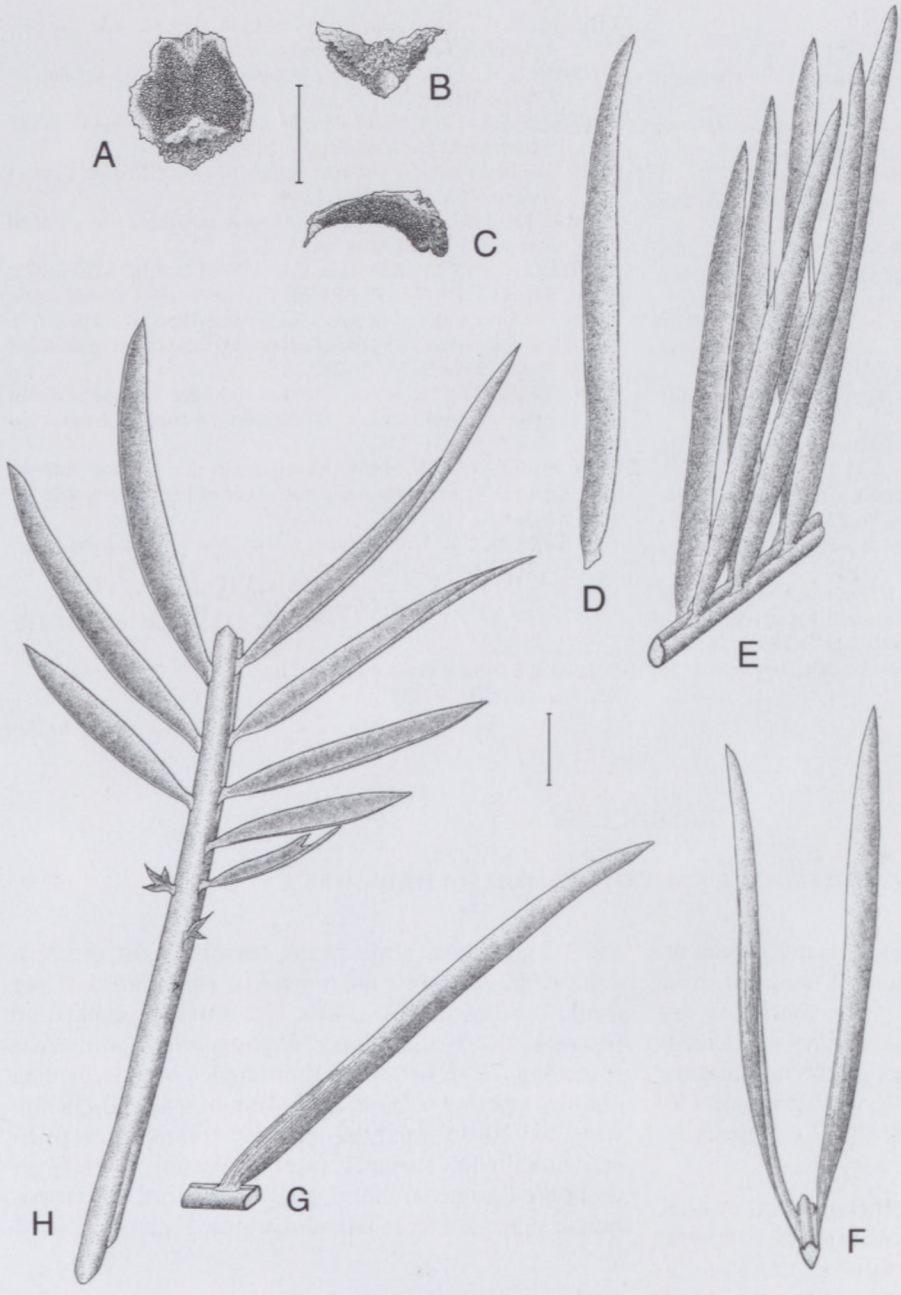

FIGURE 5.—*Encephalartos relictus* P.J.H. Hurter. A–C, microsporophyll: A, abaxial view; B, frontal view; C, side view. D, median pinna, adaxial view; E, F, median section of leaf showing inflexed nature of pinnae; G, median pinna, abaxial view and orientation towards apex of leaf; H, petiole and proximal pinnae. Scale bars: A–H, 30 mm. Artist: S.J. Burrows.

FIGURE 6.—*Encephalartos relictus* in habitat (photo: J.J.P. du Preez).

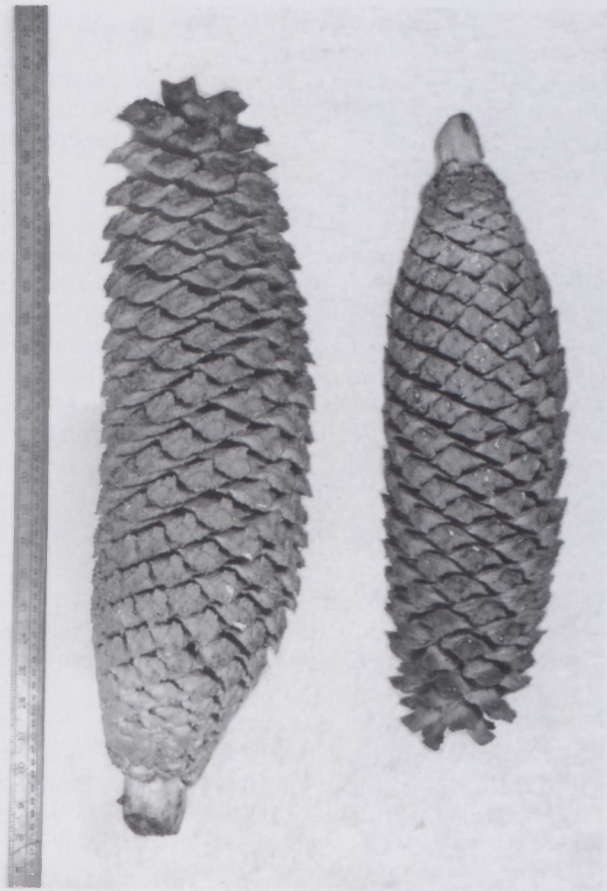

FIGURE 7.—*Encephalartos relictus* microstrobili (photo: J.J.P. du Preez).

Geographical distribution

As far as is known, this species used to grow only at a single locality in Swaziland, at an altitude of 1 000 m (Figure 8). Its present conservation status code (IUCN 1994) is ExW.

Other specimen examined

SWAZILAND.—Siteki, Farm Muti-Muti, *P.J.H. Hurter 95s/h1* (GLOW).

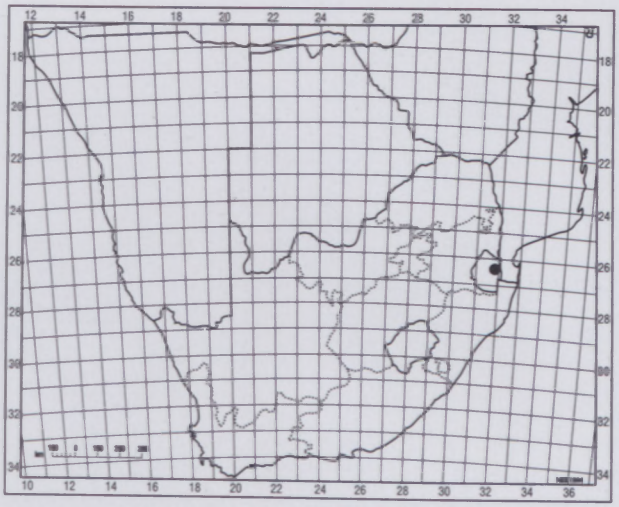

FIGURE 8.—Known former distribution of *Encephalartos relictus*. The species no longer occurs in the wild (Red List category ExW).

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