REFERENCES


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** M.P. received: 2001-04-66.

ZAMIACEAE

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 (Huter 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 relic species should be described for posterity.

ENCEPHALARTOS RELICTUS P.J.H.HUTER, sp. nov., E. heenani R.A.DYER folius rigidis caesidis similis, sed pinnis lineo-lanceolatis adscendentis inflexis, microsporophyllis ovatis tenuis, et habituane nemoralis differens.

TYPE—Swaziland: Siteki, Farm Muts-Muti, (leaf and part of male cone), 15-03-1971, J.R. da PREVEZ et al. (PRE633273, holotype).

Plant arboreae, 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, subesclisic, waxy blue-grey in colour, 1.0-1.3(-1.4) m long, pinnate ascending. Petiole apparent, woody, becoming subglabrous with age, except pinnas. Rachis straight, woody, becoming subglabrous with age, apex slightly incurved. Pinnate woody, becoming glabrous with age, entire, veins raised abaxially, margins slightly thickened, inflexed, directed towards apex of leaf at an angle of < 40° to rachis, opposing leaves inflexed, set at an angle of > 40° to each other and oriented successively, proximal pinnas gradually reduced to a few prickles. Median leaflets oblong-lanceolate, pungent, 200-250 x 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 x 120-150 mm, stalked on peduncle 30-50 mm long. Medium 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.

 диагност features and affinities

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

<table>
<thead>
<tr>
<th>DATA</th>
<th>Differences between E. heenani and E. relictus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinnas</td>
<td>ovate-lanceolate, markedly deflexed from rachis</td>
</tr>
<tr>
<td>Leaves</td>
<td>blade, narrow, leaflet-shaped</td>
</tr>
<tr>
<td>Microsporophyll</td>
<td>ovate, tomentose</td>
</tr>
</tbody>
</table>

(3)
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).
ACKNOWLEDGEMENTS

The research of which this publication is a result was financed by the National Botanical Institute. The artist is Sandie Burrows. The director of the National Botanical Institute (PRE) is thanked for permission to use the accompanying photographs.

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MS. received: 2000-03-08.

NEW RECORDS AND DISTRIBUTIONAL DISJUNCTIONS FROM SOUTH AFRICA, ZIMBABWE AND MOZAMBIQUE

INTRODUCTION

Floristic evidence for the continuity of vegetation types often lingers in the form of relicts which inhabit isolated refugia. This evidence can be ambiguous in families with adaptations to long distance dispersal. However, in a number of families, variance is the only logical explanation for distributional anomalies. This paper records disjunctions in Acanthaceae, Thymelaeaceae and Lamiales, all families renowned for the parochial dispersal of seeds and fruits.

ACANTHACEAE

Recent research (Edwards & Harrison 1998) revealed a distributional extension to the range of Pseudoranthemum hildebrandii Lindau (Acanthaceae) which reiterates the floristic links between tropical East Africa and northern KwaZulu-Natal. This species is associated with woodlands and provides compelling evidence of the continuity of dense savanna and forest habitat between the eastern seaboard of South Africa and populations in Tanzania. Acanthaceae have explosive fruits with elastic