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NOTES ON SOUTHERN AFRICAN CYCADALES II

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SUMMARY

Lavranos, J.J. & D. Goode. 1989. Notes on South African Cycadales II. *Durban Mus. Novit.* 14: 153-156.

A new species of cycad *Encephalartos cerinus* is described and discussed in relation to its presumed closest relatives.

DESCRIPTION

Encephalartos cerinus Lavranos et Goode nov. sp.; affinis *E. umbeluziensis* R.A. Dyer, sed foliis brevioribus cereis, strobilis solitariis flavo-aurantiacis, masculinis medio brevioribus differt; affinisque *E. villosa* Lem., sed ab ille petiolo inerme, foliis valde brevioribus, strobilis masculinis foemineisque minoribus, solitariis, flavo-aurantiacis discedit; affinis etiam *E. ngoyano* Verdoorn, sed ab ille foliis atroviridibus glaucescentibus, strobilis maturitate flavo-aurantiacis, strobilo masculino duplo longiore, volticulo terminali ejus plano haud acuto, strobilo foemineo majore, oblongo-ovato, haud ovato distinguenda est. Ab omnibus istis speciebus foliis strobilisque valde cereis distinguitur.

Type. Tugela Ferry district, KwaZulu/Natal, in a single gorge, alt. ca 900 m, *D. Goode* 4 (NH, holo:1).

DESCRIPTION

Plants usually branching sparingly from the base, *stems* subterranean or partly exposed when growing on rock, up to 30 cm long and 20-25 cm diameter. *Leaves* 8-15 (20) in number, 90-120 (150) cm long, with the leaflets more or less distichously directed towards the apex of the leaf and somewhat overlapping; leaflets dark blue green with a thick waxy indument, the median leaflet 15-18 cm long, and 12 mm broad tapering at both ends, with 1-2 teeth on their lower margin, petiole naked, unarmed 12-18 cm long. *Cones* of both sexes solitary, blue/green turning yellow-orange at maturity except in fully shaded situations and are always covered with a thick waxy bloom; male cones subcylindrical 55-60 cm long, 8-10 cm diameter borne on an 80 mm long peduncle, median scales with flattened terminal facet, the frontal ridge not extending beyond the facet and bearing occasional small rounded teeth; female cones are ovate-oblong, tapering to the apex, 30-35 cm long, 15-18 cm diameter, face of median female cone scales smooth, the terminal facet slightly concave, the upper ridge rounded, the frontal ridge armed with irregularly lobed teeth, 3-5 mm long, pointing downward (Fig. 1). *Seeds* deep pink to red.

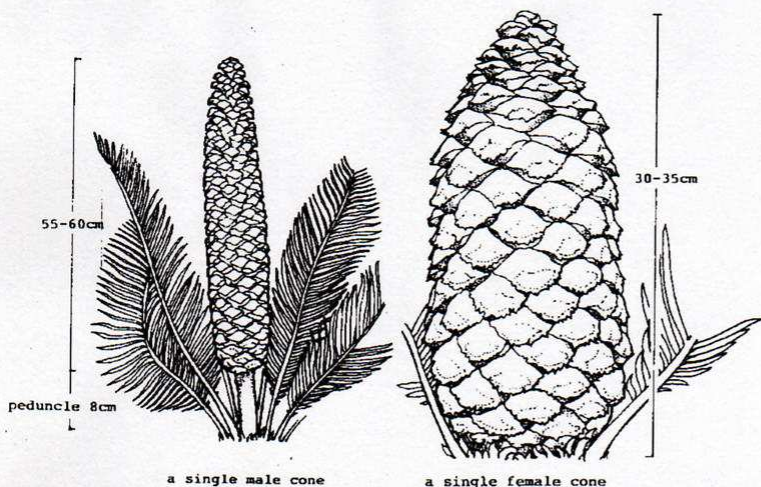


Fig. 1. The male and female cones of *Encephalartos cerinus*.

E. cerinus grows in a hot and dry habitat in KwaZulu/Natal, quite unlike the rather humid grassland habitat of two of its close relatives, *E. villosus* and *E. ngoyanus* (Fig. 2). A third relative, *E. umbeluziensis* occurs, as our new species does, in a hot dry area but does not seem to favour rock faces. Like *E. umbeluziensis*, our species is of very limited distribution, while *E. villosus* and *E. ngoyanus*, particularly the former, are widespread. From *E. umbeluziensis*, its apparent closest relative, *E. cerinus* differs by its much shorter leaves, its solitary, orange yellow cones and the heavy waxy indument covering leaves and cones alike.

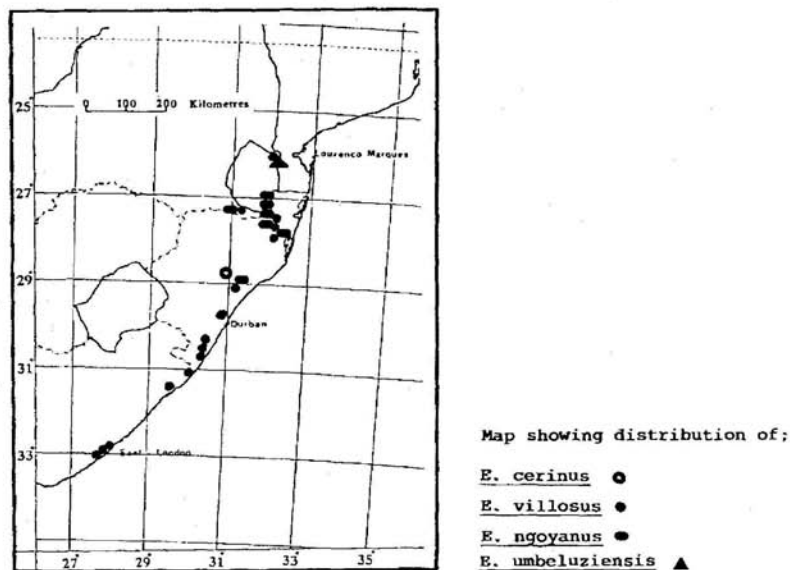


Fig. 2. The distribution of *Encephalartos cerinus* and its close relatives.

From *E. villosus*, it differs by the latter character, by virtue of its shorter leaves, which are unarmed at base and its smaller cones, which are solitary. Finally, from *E. ngoyanus*, our new species differs by its dark blue-green leaves, by the length of its male cones (55-60 cm as against 20-25 cm in *E. ngoyanus*) which have terminal scale facets which are flat and are produced in a beak-like projection, by its subcylindric shaped female cones and by the colour of its cones at maturity.

E. cerinus was first recognised as a possible new species in 1970, when a farmer in the Tugela Ferry district was shown a transplanted specimen at the house of a neighbour. He recognised that the specimen was different from other local cycads and was directed to a nearby river gorge where he found another 12 plants growing on an almost sheer sandstone cliff high above the river. Illegal collecting soon wiped out this colony. Further expeditions to find more plants proved fruitless, until a substantial colony was found five kilometres from the original colony in 1987. The second colony consisted of about 200 mature plants in cone and dozens of seedlings and juveniles when first discovered. Material was collected for this description. The plants were growing in a rocky river gorge, mostly in rock crevices and among boulders although some were close to the water's edge. Nearly all the seedlings and juveniles, and about three-quarters of the mature plants have been illegally removed since.

E. cerinus is named in allusion to the thick waxy indumentum which covers its leaves and cones.

REFERENCES

- DYER, R.A. 1965. The cycads of southern Africa. *Bothalia* 8(4):405-515.
- DYER, R.A. 1966. *Flora of Southern Africa* Vol. 1. Pretoria, Botanical Research Institute, Dept. of Agricultural and Technical Services.