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Red List of South African Plants

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Albany Cycad

Taxonomy

Scientific Name	**Encephalartos latifrons Lehm.**
Higher Classification	Gymnosperms
Family	ZAMIACEAE
Common Names	Albany Cycad (e), Albany-broodboom (a), Broodboom (a), Cycad (e), Kafferbrood (a), Kafferbroodboom (a)

National Status

Status and Criteria	**Critically Endangered A2ad; B2ab(ii,iii,v); C1+2a(i)**
Assessment Date	2009/10/31
Assessor(s)	J.S. Donaldson
Justification	Encephalartos latifrons is in a critical state of continuing decline and has no natural seed set. Based on plants in collections and studies of matched photographs, the population has declined by >80% over the past 100 years (three generations). AOO is estimated to be 9 km² and the population is extremely fragmented with most individuals separated from each other by more than one kilometre. All subpopulations comprise less than 20 plants, which is non-viable for supporting pollinators and there appears to have been no recruitment for more than 50 years. The total remaining population is estimated to be between 60 and 100 mature individuals.

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Distribution

Endemism	South African endemic
Provincial distribution	Eastern Cape
Range	Albany and Bathurst districts.

Habitat and Ecology

Major system	Terrestrial
Major habitats	Suurberg Quartzite Fynbos, Grahamstown Grassland Thicket
Description	Rocky outcrops and slopes in thicket as well as open grassland.

Threats

E. latifrons now occurs in areas where the predominant land uses are cultivation (pineapples and chicory) as well as stock farming. The impact of land use on E. latifrons is difficult to assess, but the early reports of Pearson (unpublished letters) and Chamberlain (1919) imply that at least some habitat was lost as a result of agricultural activity. Repeat photography, using photographs first taken between 1906 and 1945, indicated that all the plants occurring at seven different sites had disappeared by 1996 (Donaldson and Bösenberg 1999). However, this cannot be attributed directly to land use as, in most cases, the areas in which the plants occurred were neither ploughed nor cleared. Trade in cycads is currently the greatest threat and probably explains the decline observed in the repeat photography study. The removal of relatively large numbers of plants by collectors has been recorded with some plants recovered by law enforcement and conservation agencies. The demand for wild collected plants remains high because E. latifrons is regarded as scarce and it is one of the most highly valued species in the cycad trade. Population modelling of other species of Encephalartos (Raimondo and Donaldson 2003) showed that species such as E. latifrons are extremely sensitive to the removal of adult plants because population persistence over long periods relies on adult survival and not seedling recruitment. As a result, the species is very vulnerable to trade in mature plants. It also seems likely that the natural pollinators are extinct. No natural seed set has been recorded in recent years and the current cohort of adult plants indicates that the last recruitment event was more than 50 years ago.

Population

The population of E. latifrons has

reached critically low numbers in the wild. Based on plants in collections and studies of matched photographs, the population has declined by >80% over the past 100 years. The current wild population is estimated to number between 60 and 100 mature individuals. The actual number is uncertain because the last official count was done more than 10 years ago, when microchips were inserted into all remaining plants. Since then, not all plants have been monitored and, in a recent survey of plants to gather DNA material, there seemed to be less than 60 plants in the wild (da Silva et al. unpublished data). The plants are widely scattered, often >1 km apart. The sex ratio is ± four males to one female so that the effective population size is extremely small. All subpopulations comprise less than 20 plants, which is non-viable for supporting pollinators and there appears to have been no recruitment for more than 50 years.

Population trend Decreasing

Conservation

Introduced to two nature reserves, one as seedlings and the other as mature plants that were confiscated from collectors.

Assessment History

Taxon assessed	Status and Criteria	Citation/Red List version
Encephalartos latifrons Lehm.	**CR** A2ad; B2ab(ii,iii,v); C1+2a(i)	Raimondo et al. (2009)
Encephalartos latifrons Lehm.	**Endangered**	Hilton-Taylor (1996)
Encephalartos latifrons Lehm.	**Endangered**	Hall et al. (1980)

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Citation

Donaldson, J.S. 2009. Encephalartos latifrons Lehm. National Assessment: Red List of South African Plants version 2020.1. Accessed on 2021/10/15

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