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Bentinckia nicobarica: An Endemic, Endangered Palm of the Nicobar Islands

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Bentinckia, a palm genus endemic to India, consists of two species: *B. condapanna* Berry ex Roxb., which is restricted to the border areas of Tamilnadu and Kerala; and *B. nicobarica* (Kurz) Becc., which is endemic to the Nicobar Islands. While on a recent botanical exploration of the grasslands of the Nancowry Islands in the Nicobar district, the senior author encountered a few disjunct populations of *B. nicobarica* in the Camorta, Nancowry, and Trinkat Islands. The grasslands of the Nancowry Islands are a remnant of this endangered, native palm's natural habitat, spread over 10 500 ha of landmass on the far-flung islands of Bompoka, Camorta, Kachal, Nancowry, Terassa, and Trinkat. This arecoid palm is found growing abundantly in the tropical evergreen forest patches of these islands, along the fringes of savannah-like grassheaths.

The Nancowry Islands, situated between 7°50'–8°10'N and 93°30'–93°40'E consist of eight or nine small islands with hills, ridges, dense forests, and grasslands. Geologically, these islands are characterized by the presence of alluvial deposits, plutonic rocks, and polycystine clay throughout. The islands are exposed to both the monsoons and fair weather prevails from February through April, and for a short spell in October as well. Rainfall occurs throughout the year, usually in torrential showers, and varies from 2 286 to 3 429 mm annually. The temperature ranges from 17.8° to 33.3°C.

B. nicobarica was declared a threatened species in its natural habitat (Basu 1988). The main causes can be postulated as habitat alteration, human intervention, expansion of agricul-

ture, annual firing and cutting, and the depletion of natural resources. Palms in the understory of canopy trees are seriously affected by forest cutting, as they are very sensitive to insolation. Once their shaded, humid habitat has been destroyed, they tend to perish.

Basu (1984) studied the growth of this species in detail, and concluded that it is a fast-growing palm in cultivation and attains maturity after a period of at least 15 years. Plants grown in conservatories are rather slender, and take comparatively longer to flower. A fully grown palm produced three to four inflorescences in each flowering period, with the emergence of new leaves occurring from May to September. Basu adds that it takes over 60 days from the emergence of flower buds to the commencement of anthesis; fruit setting is abundant in the first two inflorescences of a season. Fruits are single-seeded, ovoid or sub-globose, ~1.5 × 1.2 cm, and maroon or reddish-brown when ripe. Fresh seeds germinate within 60 days in a porous compost medium. This palm is elegant and impressive with its gracefully arching leaves and attractive, grayish-white trunk, similar to those of the Royal Palm. It can be used as an ornamental, avenue palm, but is said to be susceptible to drought (Basu and Chakraverty 1994).

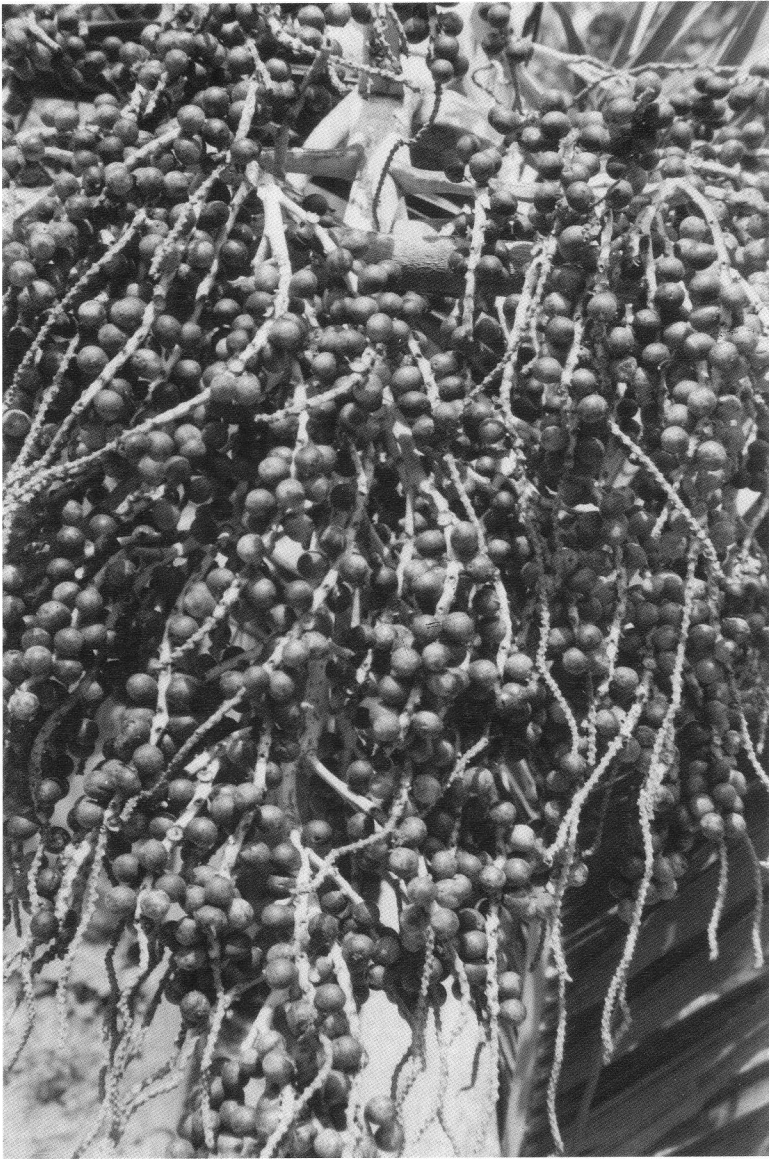
B. nicobarica grows in a few grassy patches of the Nancowry Islands, where population occurs in a discontinuous pattern. Although Mathew and Abraham (1994) report this palm on Great Nicobar Island (occurrence there is doubtful), we were able to locate over 300 palms growing along forests bordering the grassy slopes of Bompoka, Camorta, Nancowry, and Trinkat Islands.



1. *Bentinckia* in its natural habitat .

Due to its restricted distribution and probable loss of habitat (because of human interference and overgrazing), this palm can be categorized as endangered in its natural habitats. There is an urgent need to develop some means of protecting it. Although the habitats of *B. nicobarica* come under the protection of forest laws, it has been observed that some of the areas are now seriously threatened due to various biotic interferences. Moreover, the local inhabitants widely use this

rare palm to construct their huts and fences. It is hoped that one or two of the Nancowry Islands with rich populations of this palm could be declared sanctuaries in order to afford it effective protection. Attempts could be made to reintroduce it into its depleted natural habitats. Local settlers and aborigines could be educated about the importance of conserving the region's biodiversity; made aware of their rights to the biological resources around them and encouraged to



2. A close-up view of the fruits of *B. nicobarica*.

regulate their use of these natural resources in a sustainable manner. In situ conservation of this unique native palm is imperative.

Scientists at the Botanical Survey of India have achieved success in the ex situ conservation of this species. The Indian Botanic Garden of the Botanical Survey of India, Howrah, is self-sufficient in the multiplication and supply of *B. nicobarica*. However, while ex situ measures preserve biodiversity, they arrest the process of

evolution. In cases of in situ conservation, both processes can occur simultaneously. We hope that some of the best preserved islands with good palm populations will be identified as Priority Conservation Area Matrices, and sustained efforts will be made to conserve these natural heritage sites. The authors would like to appeal to those in authority to create a *Bentinckia* sanctuary, as we have for the Megapodes, the Thermometer Bird, and other fauna. Palms and other

plants are a vital part of nature, and are equally deserving of protection.

Acknowledgments

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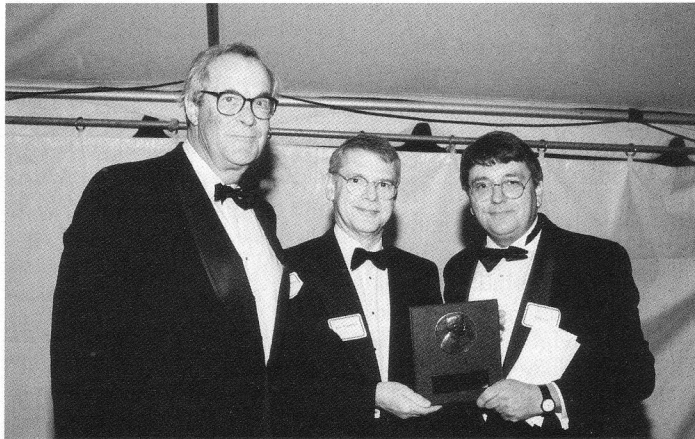
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Editor Receives Award

One of our co-editors, Dr. John Dransfield, received the prestigious David Fairchild Medal for Plant Exploration from the National Tropical Botanical Garden on 19 February 1999. Citing Dr. Dransfield's contributions to *Genera Palmarum* and *Palms of Madagascar* and his numerous publications on rattans, Dr. Paul Alan Cox, Director of the National Tropical Botanical Garden, awarded Dr. Dransfield a bronze plaque and citation. The citation commended Dr. Dransfield "as being expert in the art and skill of botanical exploration, employing ingenious conveyances and curious itineraries to traverse areas both remote and inaccessible throughout the world, bringing to the notice of polite and learned company plants of singular beauty and economic importance ..." To that, we can add only, "Congratulations, John!"

SCOTT ZONA



Douglas McBryde Kinney (left), Chairman of the National Tropical Botanical Garden, with John Dransfield (center) and Paul Alan Cox (right).