## 'Bread from the Wild' – Cycas circinalis L. Endemic, Endangered, and Edible

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vcas circinalis is known to be endemic to the Indian subcontinent. restricted to the Western Ghats, in the states of Kerala, Karnataka, Tamil Nadu, and the south of Maharashtra. It typically occurs in fairly dense, seasonally dry scrubby woodlands in hilly areas. Many trees in this habitat lose their leaves in the dry season, and C. circinalis is also facultatively deciduous in extremely dry times. It appears to be an adaptable species with colonies extending from rocky hill outcrops down to coastal habitats at sea level. It is locally abundant in several areas, although the habitat has been severely reduced and degraded. Good populations still exist in a number of national parks and forest reserves. The local people in Kerala do not practice cutting of stems for medicine as in Tamil Nadu. There are several very large populations along the coast in Kerala that have been integrated within local villages and left undisturbed.

Cycas circinalis-or 'eenth' as it is locally called in Kerala-is a small, evergreen, palm-like tree growing to 25 ft. in height and found in the deciduous forest up to 1200 m altitude. The trunk bears permanent leaf scars, and the leaves look like palm leaves. November to January is the season in which the cycas trees cone in Kerala. Male and female cones are found on separate plants. Male cones consist of numerous structures called microsporophylls that produce thousands of powdery pollen grains. Female cones consist of numerous megaporophylls, which are specialized leaf-like structures bearing seeds. The seeds can be seen in parts of Nilambur, Waynad, and Palakad of Kerala in the months of March to June. Seeds, when ripe, are greenishyellow in color.

In this article, the popular uses of cycas seed flour are highlighted. The practice of eating foods made from this flour is still prevalent in many parts of Kerala. Many of the people

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interviewed during the course of this survey mentioned that it was a food that was much more common about thirty years ago.

'Eenth' flour still very popular.

The flour of Cycas circinalis seedscalled 'eenthakka podi'-is much used and still very popular in parts of Kerala. Malathi, a Paniya1 lady of Nedumkavam village, comments, "Food made out of rice fails in front of 'eenthakka'." Laxmi, a Kattunaicka2 lady of Ettappara village, says, "Anything we make now with rice flour was once done with flour of 'enthakka podi'." People of Appankappu village also believe that they are eating the less nutritious rice, giving up the practice of eating foods that they get from the forest, and this, they believe, is the

root cause for their bad health. They remember that the practice of eating cycas seed flour was still common about eight years

In one season alone, the village of Appankappu harvests and processes 1500 kg of cycas seed for consumption and sale. The seeds are collected in the months of June through August in Kerala. When the seed coat turns yellow, it is mature and is harvested. One private buyer in the local town mentioned that his procurement for the last year of cycas seeds was 10,000 kgs!

Leach well before you eat! One of the women interviewed commented that if the seeds were eaten unleached, then in her words, "You will vomit as many times as the number of the scars on the 'entha maram' (cycad tree)." To process the seeds in Kerala, the following process is undertaken.

The seeds are first halved and placed on raised platforms made of bamboo for smoking. The collection time coincides with the monsoon and extra effort has to be made to get dry firewood and keep the seeds dry. Once dried and smoked, seeds can be stored for more than three years.

Before they are ground to flour, the seeds are leached several times in cold water. There are two ways to leach the seeds. One is to keep seeds in a bamboo basket or a jute sack in running water. The other method is to



Cycas leaves and seeds on display at a 'Wild Foods' festival organised by Keystone Foundation



boil seeds in water more than three times. After leaching, the seeds are left to dry and are then powdered to a fine or coarse flour to make various delicacies. Sometimes people cook with fresh seeds too! The seeds are kept in boiled water for half an hour and this is repeated thrice.

Recipes for cycas seed flour.
There are many ways to prepare cycas seeds. Below are just a few.

- The coarse flour is steam-cooked in a traditional vessel made of either metal or bamboo to make a steamed cake. Ground and roasted flour is then mixed with grated coconut, salt, and cumin seeds and kneaded into dough with water. The dough is then rolled into small balls and steam-cooked to make 'pidy', which is eaten with meat curry.
- Finely-ground fresh flour soaked overnight with yeast and salt is allowed to ferment. This mixture is then steam-cooked in a special mold to make 'idly'. The leached fine flour is also made into a thick porridge which is flavored with salt, sugar, or coconut. This mixture is used as a baby food.
- The fresh seeds are cut in half and kept in running water for three days. They can also be soaked in a pot of water for three days, but the water needs to be changed at least three times a day. The seeds are then boiled with salt and, when they are soft, spices like spicy green chiles,

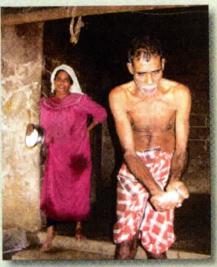
cumin seeds, garlic, curry leaves, small onions, and grated coconut are mixed to make a vegetable dish called 'puzhukku'.

Traditionally, products from the forest were gathered and used for various commercial and non-commercial purposes. The non-commercial use of forest products was primarily food, fiber, medicine, fodder, construction, etc. Honey, medicinal plants, and other fruits continue to be harvested and sold to traders on a commercial basis. While there have been studies on the commercial species and their role in the lives of indigenous peoples, not much has been done on the non-commercial species.

There has been an overall change in food habits of traditional indigenous communities. Every village had a method of gathering and processing wild foods. The methods of collection often reflected on the ecology of each species and were linked to its biology. In this way, the processing of the harvested material was linked to the properties of the produce. Together this knowledge became vital in ensuring that the harvest did minimum damage to the plant in its habitat. Today, however, many people are reluctant to say that they eat these foods, as they are considered less sophisticated. In the loss of these uses, we also lose the knowledge that was linked to the ecology and the property of the 'breads from the wild'.



Cycas circinalis nursery in Kerala, India.



Cycas seeds are still popular with some people in Kerala.

'The Paniyas represent a major indigenous group and a well-settled population of Northern Kerala.

The Kattunaickan/Pathinaickans represent an indigenous group of good honey hunters, collecting honey from trees as well as cliffs. The Kattunaickan are also one of the major non-timber forest products (NTFP) collectors of Nilambur.



Left: Pidy made from Cycas seed flour; right: Steamed noodles made with Cycas seed flour