

THE ROLE OF BUSH FOODS IN CONTEMPORARY ABORIGINAL DIETS

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Summary

The aim of the Bush Foods Programme is to identify and document the usage of native foodstuffs in present-day Aboriginal diets. Data collected over a 3-year period have indicated the range of foods and identified the staples of traditional diets. This paper describes the seasons known to the Top End Aborigines and the indicators to food sources. One season and the range of foods is described in detail.

I. INTRODUCTION

The use of bush foods in contemporary Aboriginal diets is affected by a complexity of cultural, environmental and economic factors such as a right to utilise land, knowledge of seasons and signs of foods sources, and the ability to identify, collect and prepare foods.

Most Aboriginal groups in the Top End of the Northern Territory identify six distinct seasons which are subject to annual climatic variation. Figure 1 shows a year in terms of seasonal names, wind directions, main seasonal features, and food supplies, as described to Steven Davis by the Gupapunya people of the Crocodile Islands (Davis 1981).

The season named Dharratharra extends from mid-May to early August and is typified by cool nights and misty mornings with strengthening SSE-SE winds. It is the season of fires and dwindling water supplies, with birds and more mobile ground animals becoming scarcer.

II. RANGE OF FOODS AVAILABLE

Table 1 lists some 20 plant foods or indicators of animal foods in this least prolific season. Plants are classified and named according to the nature of the species, habitat, part eaten, excellence of taste and availability (Rudder 1976; Waddy 1979).

Table 1. Foods in the bush during Dharratharra

<u>Eriosema chinense</u>	Root	Common
<u>Ipeomea graninea</u>	Root	Common
<u>Vigna lanceolata</u>	Root/pods	Common
<u>Gardenia megasperma</u>	Fruit	Common
<u>Discorea transversa</u>	Root	Abundant
<u>Discorea bulbifera</u>	Root	Abundant
<u>Grevillia pteridiifolia</u>	Nectar	Common

Foods in and around water-holes in Dharratharra

<u>Eleocharis virosa</u>	Corm	Common
<u>Nymphaea macrosperma</u>	Stem/root/bulb	Abundant
<u>Nymphaea gigantea</u>	Stem/root/bulb	Common

Foods from another season

<u>Terminalia ferninandiana</u> (left over from Midawarr)	Fruit	Abundant
<u>Morinda citrifolia</u> (early from Rarranhdharr)	Fruit	Common

Trees in which bees nest to produce honey in Dharratharra

<u>Eucalyptus tetradonta</u>	Very common
<u>Xylocarpus granatum</u>	Very common
<u>Eucalyptus miniarta</u>	Very common

Plants which indicate availability of animal foods

<u>Acacia torulosa</u>	Flowers indicate Sweetlip (fish) is good to eat
<u>Acacia auriculiformis</u>	Flowers show turtles have a lot of fat
<u>Pandanis yirrkalaensis</u>	Fruit turning red indicates turtles are laying eggs
<u>Brachychiton paradoxis</u>	Loss of leaves and blossom shows sharks are giving birth

Levitt (1981) has described some 200 plant foods used at Groote Eylandt over a year. Our research and that of others (Specht and Mountford 1960) confirms a similar range throughout the Top End.

Animal foods are classified and named according to habitat (i.e. land, sea, rivers), mobility and individual features, e.g. flying animals such as birds and bats are distinct from furred flying animals such as the sugar glider (Rudder 1976). Table 2 lists the commonly used animal sources of the Dharratharra season, use being determined by accessibility and acceptability of flavour.

Table 2. Slithering animals of Dharratharra

Javan file snake	<u>Acrochordus javanicus</u>	Common
Water python	<u>Liasis fuscus</u>	Common
King brown snake	<u>Pseudechis australis</u>	Common
Olive python	<u>Liasis olivaneus</u>	Common

Crawling animals of Dharratharra

Mangrove monitor	<u>Varanus indicus</u>	Common
Sand goanna	<u>Varanus gouldii</u>	Common
Mertons water monitor	<u>Varanus mertensii</u>	Common
Marbled velvet gecko	<u>Oedura marmorata</u>	Common
Northern blue-tongued lizard	<u>Tiliqua scincoides</u>	Common
Northern snake-necked turtle	<u>Chelodina rugosa</u>	Abundant

Flying animals of Dharratharra

Reddish fruit bat	<u>Pteropus scapulatus</u>	Fat and
Black fruit bat	<u>Pteropus alecto</u>	Common

Shellfish and Crustaceans of Dharratharra

Lined Nerite	<u>Nerita lineata</u>	Abundant in mangroves
Nerite	<u>Nerita polita</u>	Abundant in mangroves
Mud mussel	<u>Anadara granosa</u>	Abundant in mangroves
Faded sunset shell	<u>Asaphis deflorata</u>	Abundant along coastline
Turban shell	<u>Subnina sp.</u>	Abundant along coastline

At least 10 other shell varieties are commonly used.

Mud crab	<u>Scylla serrata</u>	Abundant
Sand crab	<u>Portunus pelagicus</u>	Abundant
Fiddler crab	<u>Uca sp.</u>	Common

Fish of the sea and rivers of Dharratharra

Barramundi	<u>Lates calcarifer</u>) Abundant and fat) at this season
Sheridans threadfin	<u>Polydactylus sheridani</u>	
Giant threadfin	<u>Eleutheronama tetradactylum</u>	

Approximately 10 kinds of reef fish become accessible in this season as they shelter near the shore from strong winds.

Large swimming animals of Dharratharra

Green sea turtle	<u>Chelonia mydas</u>	Most commonly- eaten turtles
Flat-back turtle	<u>Chelonia depressa</u>	

III. MEANS OF COLLECTION AND PRESERVATION

Food-gathering expeditions usually focus on a particular food item, illustrating the environmental knowledge needed for the task.

Example 1. Collection of long yams - Discorea transversa. Locate the thick (25 mm) vine that climbs around the trees - it may reach 20 m above the ground. Prod the ground with a stick in an area 2 m around the base of the vine. You can tell where the yams are by the sound when prodding. A fuller deeper sound is heard above the yam.

Example 2. Collection of waterlily roots and pods - Nymphaea gigantea. After the lily has flowered the pod, containing seeds, falls back into the water. By wading through the lagoon the pod and stem are easily collected below the surface of the water. The roots, however, are embedded in the muddy lagoon floor. A small heart-shaped leaf floating on the surface of the water indicates the existence of the root, which is located by following the stem attached to the small heart-shaped leaf down into the mud. The collectors may then have to dive to dig up the root with their hands.

Example 3. Collection of mud crabs - Scylla serrata. After the tide has just gone down look in the mangroves for small pools of water which have been disturbed; they are muddy in appearance. Sometimes it is possible to see the crab outline beneath the mud. You need to push a thick stick into the muddy hole; the crab grabs the stick with his large claw and can then be pulled out.

Many foods are eaten immediately collected, any surplus being taken to the camp only if supplies are abundant and easily obtained. Foods which require cooking may be cooked on the spot or taken back to camp. Cooking methods involve boiling in a billy can or roasting in a fire. Fire roasting may be

simply by throwing food on to hot embers, or it may entail elaborate digging of a pit, heating stones or shells, then covering food with selected leaves, grasses and sand to achieve a steam-baked effect. The method used is determined by a combination of tradition and hunger.

IV. NUTRIENT INTAKES FROM BUSH FOODS

It is impossible at present to quantify specific nutrient contributions to the diet from bush foods as no quantitative studies have yet been attempted. However, we are aware of certain outstation groups who utilise only the most basic food items from stores (flour, sugar and tea) and are in apparent good health, as measured by child growth-patterns, indicating an overall diet of adequate quantity and quality. In larger settlements bush foods are often utilised on weekends and holidays only. However this contribution may be significant. A study of income and food purchases by Milikapiti Aboriginal Health Workers in 1979 commented that 'without the supplementary effect of bush foods our children would not keep their nutritional heads above water' (Daniels et al. 1980).

Over the period of the Programme the repeated collection and observed usage of Discorea transversa, Discorea bulbifera and the Nymphaea species have made it obvious that these are important staples both of the past and today.

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N.E. Arnhem Land seasonal calendar

