

Edible Seaweeds of Fiji: An Ethnobotanical Study

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(Accepted 19 May 1993)

Abstract

Seven taxa of seaweeds feature in the diet of native Fijians: *Caulerpa racemosa*, *Caulerpa racemosa* var. *occidentalis*, *Codium bulbopilum*, *Hypnea pannosa*, *Gracilaria* sp., *Solieria robusta*, and *Acanthophora spicifera*, with the preferred species being *Caulerpa* and *Hypnea*. A survey of the taxonomy and nomenclature of the edible species is provided, together with the Fijian names for the species, a description of harvesting, marketing and the socio-economic role of seaweeds in Fijian society. The harvesting, sale and consumption of edible seaweeds is almost exclusively an activity of women and girls from the native Fijian (Melanesian) population, and is organized through family and village groups in a cooperative manner. Seaweeds are regarded as a delicacy by the Fijians, who consume them using a variety of recipes, which are described. The volume and value of the crop is summarized for the period 1981–1991; up to 36 metric tonnes of seaweeds, valued at FJ\$50 000 (US\$32 000) per annum are sold in Fijian Municipal Markets and other outlets.

Introduction

Chapman and Chapman (1980), Arasaki and Arasaki (1983), Abbott (1988) and Abbott and Cheney (1982) have reviewed the uses of seaweed for food. Virtually nothing, however, has been published about edible seaweeds in the South Pacific islands. Seaweeds (or *sea vegetables*) have been a traditional human food source since pre-history, particularly in Asia. Their consumption is also an important dietary element for many Pacific island peoples, and Abbott (1984) has provided a detailed account of edible seaweeds for Hawaii.

Chapman and Chapman (1980) list more than 60 species of seaweeds that are consumed as human food, and this list is doubtless incomplete. Abbott (1988) lists twenty-nine species favoured as food by Hawaiians. She notes that they fall into two broad categories: those collected from the wild, and those that are cultivated. As there is no commercial cultivation of edible seaweeds in the South Pacific region, the entire crop is gathered from the wild and consumed by the gatherer, or sold in local markets.

There are few previous references to edible seaweeds in Fiji (*cf.* Adams and Foscarini 1990, Prakash 1990,

South 1993), although they are known to form a regular part of the diet of native Fijians, and are a feature of Fijian municipal markets. The Fiji Fisheries Division has been surveying seaweed sales and market values since the nineteen eighties (Fiji Fisheries Division 1981–1991). Up to six edible seaweed 'species' are illustrated in posters displaying Fijian fishery products, and the Fijian language includes a variety of general and specific colloquial names for seaweeds.

Despite the strategic position of the Fiji Islands, and their history of early exploration and colonial rule, there have been very few studies of the benthic marine algae. South and Kasahara (1992) have summarized the principal earlier studies, and provided a preliminary checklist of 314 taxa of benthic marine algae (11 Cyanophyceae, 99 Chlorophyceae, 36 Phaeophyceae and 168 Rhodophyceae) for the Islands. Recent research has indicated that this preliminary list falls far short of the numbers of species that actually occur (South, N'Yeurt, and Raj Prasad 1993).

The Fiji Islands occupy a central position in Oceania, spanning the 180th meridian and lying between 177°E and 178°W, and 16 to 20°S (Fig. 1). A land area of some 18 276 km² is scattered over 332 islands, occu-