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Research Paper

WILD EDIBLE PLANTS TRADITIONALLY USED BY KADAR TRIBES OF VAZHACHAL FOREST DIVISION, THRISSUR, KERALA

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Abstract

The present study deals with wild edible plants used by Kadar tribes of Vazhachal Forest Divison. A total of 55 species of edible plants are documented in which 23 species are consumed as fruits, 12 as edible tubers and rhizomes, 12 as leafy vegetables, 8 species for seeds and 3 species for shoots and bark. All plants are arranged alphabetically in the tabular form followed by families, local name, plant part(s) used and method of consumption.
Key words: Wild edible plants, Kadar tribes, Vazhachal Forest Division.

INTRODUCTION

Wild edible plants have been a part of human life since time immemorial. They played an important role in the livelihood of the rural communities in many developing countries. In India, most of the rural communities depend on wild resources including wild edible plants to meet their food requirements in period of food crisis as well as for additional food supplements. India has a tribal population of 42 million, of which 60 percent live in forest areas and depend on forests for various edible products [1]. They are also primary alternative sources of income for many resource poor communities.

Now a days, people are more focused on domestic plants for their basic needs but still wild edibles form a major part of the diet of many tribal communities [2]. The nutritional value of traditional wild plants is higher than several known common vegetables and fruits [3]. These wild edibles can be considered as a valuable resource, which can be used for new crop species development.

The present study focused on the documentation of wild edible plants among Kadar tribes of Vazhachal forest division, in Thrissur district. Kadar is considered as the best representative of the integrated food gathering tribes of South India. The word Kadan in Malayalam means, the dweller in a forest. The tribe got their name because of their exclusively forest habitat. The main occupation of these tribes is food gathering and they are considered as one of the six endangered food gatherers in India. They are also categorized as one of the five primitive tribal groups in Kerala.

Since these tribals are more backward among other tribal groups of the country, they have a vast knowledge regarding the consumption and utilization of wild edible plants. The various schemes and welfare programmes enacted by the Government brought a serious of changes to their lifestyle and it might have resulted in the loss of traditional knowledge from these primitive tribes. Today the knowledge of the wild edible plants and their uses is limited only to older people among the tribes. In this context, it is very significant to go with these ethnic groups of people and document the traditional knowledge regarding edible plant wealth.

MATERIALS AND METHODS

The study was conducted in Vazhachal Forest Division of Thrissur District. Basic informations regarding the Kadar tribes are collected from the State Forest Department. Three tribal settlements *viz.*, Vazhachal, Pokalappara and Watchmaram are selected for the survey. Major livelihood source of these tribes are the collection of minor forest produce such as honey, sheevakkai, black dammars etc; some of them are employed in forest department also. For the documentation of wild edible plants, a semi structured interview was carried out among the selected members of each tribal settlement. Respondents were asked to name the edible plants they gather, parts consumed and the method of consumption. Most of the specimens were identified from the field itself. The photographs of unidentified specimens are taken and later identified with the help of available floras [4].

RESULTS AND DISCUSSION

A total of 55 species of wild edibles are reported from the study area. Among them, they consume fruits of 23 species; tubers and rhizomes of 12 species; leaves and tender fronds of 12 species; seeds of 8 species and shoots and bark of 3 species. The list of edible plants is arranged alphabetically in a tabular form followed by families, local name, parts used and method of consumption (Table 1).

Table 1. Wild edible plants used by Kadar tribes of Vazhachal Forest Division

Plant name (Family)	Local name	Parts used	Method of consumption
Acacia sinuata (Lour.) Merr. (Mimosaceae)	Sheevakkai	Seeds	Seeds eaten cooked
Alternanthera sessilis (L.) R. Br. ex. DC (Amaranthaceae)	Kozhuppacheera	Leaves	Cooked in oil and eaten as vegetable
Amaranthus spinosus L. (Amaranthaceae)	Mullancheera	Leaves	Cooked in oil and eaten as vegetable
Amaranthus viridis L. (Amaranthaceae)	Kuppacheera	Leaves	Cooked in oil and eaten as vegetable
Amorphophallus commutatus (Schott) Engl. (Araceae)	Kattuchembu	Tuber	Boiled and eaten
*Angiopteris helferiana*C. Presl. (Marattiaceae)	Kidangu	Tender fronds	Cooked in oil and eaten as vegetable
Aporosa cardiosperma (Gaertn.) Merr. (Euphorbiaceae)	Vetti	Fruits	Ripened fruits eaten raw
Arenga wightii Griff. (Arecaceae)	Kattuthengu	Tender shoots	Crushed and powdered shoot is placed in water overnight followed by drying of settled starch under sunlight and make it in to flour.
Artocarpus heterophyllus Lam.(Moraceae)	Plavu	Fruits and seeds	Flesh of ripe fruits eaten raw and seeds are boiled and eaten
Artocarpus hirsutus Lam. (Moraceae)	Anjili	Fruits and seeds	Flesh of ripe fruits eaten raw; seeds are roasted and eaten
Asparagus racemosus Willd. (Liliaceae)	Shatavari	Tuber	Boiled and eaten
Baccaurea courtallensis (Wight) Muell.	Mootilpazham	Fruits	Ripened fruits eaten raw

(Euphorbiaceae)			
Bambusa bambos (L.) (Poaceae)	Mula	Tender shoots and leaves	Cooked in oil and eaten as vegetables
Boerhavia diffusa L. (Nyctaginaceae)	Thazhuthama	Leaves	Cooked in oil and eaten as vegetable
Carica papaya L. (Caricaceae)	Kappanga	Fruit	Ripened fruits eaten raw; unripe fruits cooked in oil and eaten
Caryota urens L. (Arecaceae)	Choondappana	Tender shoots	Starch obtained from crushed and powdered shoot used as an edible flour
Cinnamomum malabatrum (Burm. f.) Blume. (Lauraceae)	Vayana	Bark	Dried bark as a spice
Coccinia grandis (L.) Voight (Cucurbitaceae)	Koval	Fruit	Unripened fruits used as vegetable
Colocasia esculenta (L.) Schott in Schott & Endl. (Araceae)	Kattuchembu	Leaves and tubers	Leaves and boiled tuber cooked as vegetable
Costus speciosus (Koenig) J.E. Smith. (Zingiberaceae)	Channakoova	Rhizome	Boiled and eaten
Cucumis melo L. (Cucurbitaceae)	Kattuvellari	Fruit	Unripened fruits used as vegetable
Curcuma zedoaria (Christm.) Rosc. (Zingiberaceae)	Manjakoova	Rhizome	Boiled and eaten
Cycas circinalis L. (Cycadaceae)	Eenth	Tender leaves and Seeds	Leaves cooked as vegetable; Crushed and powdered seeds used as an edible flour
Delonix regia (Boj. ex Hook.) Rafin. (Caesalpiniaceae)	Vaka	Seeds	Seeds eaten roasted
Dioscorea belophylla Voigt(Dioscoreaceae)	Chandanakizhangu	Tuber	Boiled and eaten
Dioscorea bulbifera L.(Dioscoreaceae)	Kattukachil	Tuber	Boiled and eaten
Dioscorea hispida Dennst.(Dioscoreaceae)	Chavalkkizhanghu	Tuber	Boiled and eaten
Dioscorea pentaphylla L.(Dioscoreaceae)	Noorankkizhanghu	Tuber	Boiled and eaten
Dioscorea oppositifolia L.(Dioscoreaceae)	Kanjirakkizhangu	Tuber	Boiled and eaten
Dioscorea wallichii Hook. f.(Dioscoreaceae)	Naarakkizhangu	Tuber	Boiled and eaten
Dioscorea tomentosa Koenig ex Spreng.(Dioscoreaceae)	Noolamkkizhangu	Tuber	Boiled and eaten
Diospyros bourdillonii Brandis(Ebenaceae)	Karimpudala	Fruit	Ripened fruits eaten raw
Elaeocarpus serratus L.(Elaeocarpaceae)	Karakka	Fruit	Ripened fruit eaten raw
Entada rheedei Spreng. (Mimosaceae)	Kakkumkaya	Seed	Endosperm of seed soaked in water overnight and cooked with rice
Flacourtia montana Graham	Kattuloikka	Fruit	Ripened fruit eaten raw

(Flacourtiaceae)			
Grewia tiliifolia Vahl (Tiliaceae)	Chadachi	Fruit	Ripened fruit eaten raw
Hemidesmus indicus (L.) R. Br.(Periplocaceae)	Nannari	Tuber	Boiled and eaten
Hibiscus hispidissimus Griff. (Malvaceae)	Panachol	Leaves	Tender leaves cooked as vegetable
Madhuca neriifolia (Moon) H. J. Lam. (Sapotaceae)	Iluppa	Fruit	Ripened fruits eaten raw
Mangifera indica L. (Anacardiaceae)	Mavu	Fruit	Ripened fruit eaten raw; unripened fruit used as vegetable and making pickles
Momordica dioica Roxb. ex Willd. (Cucurbitaceae)	Kattupaval	Fruit	Unripened fruit used as vegetable
Oxalis corniculata L. (Oxalidaceae)	Puliyarila	Leaves	Cooked in oil and eaten as vegetable
Persicaria chinensis (L.) Gross. (Polygonaceae)	Thiruthanni	Leaves	Cooked in oil and eaten as vegetable
Phyllanthus emblica L. (Euphorbiaceae)	Nelli	Fruit	Unripened fruits eaten raw and used in pickles
Samanea saman (Jacq.) Merr. (Mimosaceae)	Mazhamaram	Fruit	Flesh from the pod eaten raw
Senna tora (L.) Roxb. (Caesalpiniaceae)	Thakara	Leaves	Cooked in oil and eaten as vegetable
Solanum americanum Mill. (Solanaceae)	Karimthakkali	Fruit	Ripened fruit eaten raw
Solanum torvum Sw. (Solanaceae)	Chunda	Fruit	Ripened fruit eaten raw
Solanum violaceum Ortega (Solanaceae)	Putthirichunda	Fruit	Ripened fruit eaten raw
Spondias pinnata (L. f.) Kurz (Anacardiaceae)	Ambazham	Fruit	Ripened fruits eaten raw and unripened fruits used in pickles
Sterculia guttata Roxb. ex DC (Sterculiaceae)	Kavalam	Seed	Roasted seeds are eaten
Syzygium cumini (L.) Skeels. (Myrtaceae)	Njaval	Fruit	Ripened fruit eaten raw
Tamarindus indica L. (Caesalpiniaceae)	Puli	Seed	Roasted seeds are eaten
Trichosanthes nervifolia L. (Cucurbitaceae)	Kattupadavalam	Fruit	Cooked as vegetable
Ziziphus rugosa Lam. (Rhamnaceae)	Kotta	Fruit	Ripened fruit eaten raw

Among the tubers, *Dioscorea* sp. are the most preferred one. The same finding was also reported in a study conducted among Kadar tribes of Parambikulam Wildlife Sanctuary [5]. The tribals know the exact locations, where these tubers are available. After digging out the tubers, a small piece is left out there for regeneration. *Dioscorea* sp. is generally consumed after removing the toxic chemicals present in the tuber [6]. In order to remove the itching caused by the *Dioscorea*, Kadar tribes peeled the tuber and boil it in water mixed with turmeric powder. The preference of leafy vegetables in their daily diet could be due to the fact that they are easily available around their habitat. Most of the edible leaves are weedy in nature and they can be easily collected from the wastelands, degraded lands, forest gaps and margins etc. Some of the species

like *Colocasia esculenta, Cycas circinalis, Amaranthus viridis* etc are grown in their houses also. Edible fruits are the most preferred among the entire wild plants consumed (39.7%) (Fig. 1). The availability of these fruits is seasonal. They preferred to eat ripe fruits as raw and some of the unripe fruits like *Mangifera indica, Phyllanthus emblica, Spondias pinnata* etc are used for making pickles. A study of wild edible plants of Anamalai hills also concluded that fruits and leafy vegetables are the most preferred plant parts among Kadar [7].

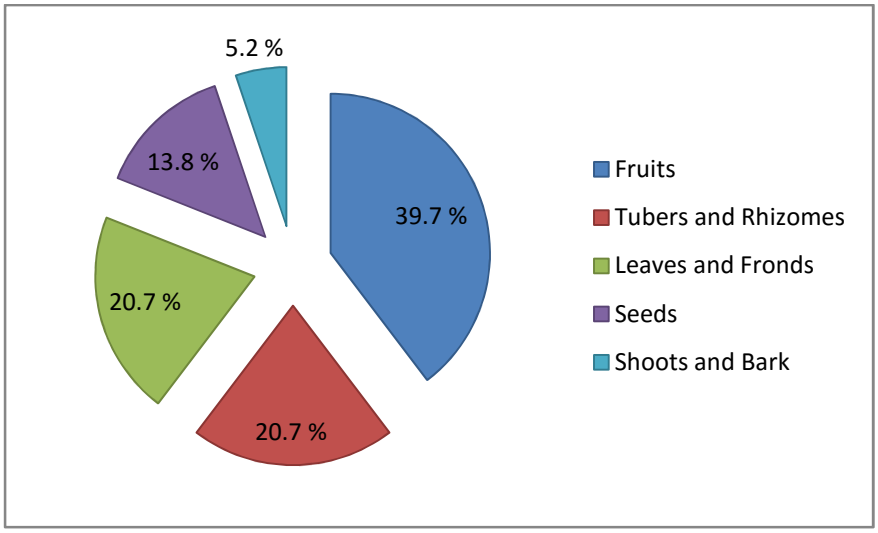

Fig. 1 Percentage of wild edible plants recorded in terms of parts used

Kadar tribes consumed eight species of wild seeds. They are collected mainly from the ground and consumed by roasting except *Entada rheedei* and *Cycas circinalis*. In order to reduce the bitter taste of Cycas seeds, powdered seeds are placed in water overnight and next day run off the water and again washes with pure water and decanted off. Then dried under sun and used as an edible flour. Among the edible shoot bearing plants, the shoots of *Arenga wightii* and *Caryota urens*, are crushed and powdered shoot is placed in water overnight and dried settled starch under sunlight and make in to a cake.

The local tribal communities for their dietary requirements utilized these wild edible plants for a long time. Today the knowledge of these wild edible plants and their uses is limited only to older people. The dependency on wild edible plants is less due to the availability of cereals and vegetables from the private shops nearby. So some vital measures have to be taken for the conservation and utilization of this ethnic knowledge of Kadar tribes on wild edible plants. The nutritive value of the identified edible plants should be worked out and can be effectively utilized to meet the food security of the nation.

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