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Known edible fig plants in Khao Nan national park, Nakhon Si Thammarat province, Peninsular Thailand

BHANUMAS CHANTARASUWAN[1]* AND ANAN CHARERNSOOK[2]

[1]*Thailand Natural History Museum, National Science Museum, Technopolis, Khlong 5, Khlong Luang, Pathum Thani 12120 THAILAND*
[2]*Khao Nan Natonal Park, Taling Chan, Thasala, Nakhon Si Thammarat, 90100 THAILAND*

ABSTRAC.- Native people residing in the southern part of Thailand usually have good intellectual knowledge of utilizing the indigenous fig plants; notably those inhabitants of Nakhon Si Thammarat province who have heavily used those plants as food for a long time. From our survey in Khao Nan National Park which situating in this particular province, we have found at least 10 utilized fig species; i.e. *Ficus chartacea* (Wall. ex Kurz) Wall. ex King, *Ficus racemosa* L., *Ficus auriculata* Lour., *Ficus variegata* Blume, *Ficus semicordata* Buch. - Ham. ex Sm., *Ficus fistulosa* Reinw. ex Blume, *Ficus lepicarpa* Blume, *Ficus schwarzii* Koord. *Ficus scortechinii* King and *Ficus obpyramidata* King. All figs can be grouped according to the methods of utilization into 3; 1) as vegetable only - young fruits, 2) as fruit only - ripe ones, and 3) as both vegetable and fruit.

KEY WORDS.- edible fig plants, Khao Nan National Park

INTRODUCTION

The fig plants (*Ficus* spp.) are constituent element of the family Moraceae; They are well-known for their ecological role as food suppliers to a wide range of frugivores, from tiny wasps to large hornbills and both arboreal and terrestrial mammals. Fore human, some species of figs are of outstanding value for his continual existence; rural people have been known to use figs as medicinal herbs and food; the latex used for healing a wound or taken orally for treating diarrhea (de Padua, et al., 1999). In Nepal, the people there use many fig species for food; the fruits of Banyan (*Ficus benghalensis* L.) will be eaten in times of food scarcity; the fruits of *Ficus racemosa* L. may be consumed raw or cooked; the young fruits of *Ficus hispida* L.f. also used in curries, etc. (Storrs and Storrs, 1990). The well-known fig tree (*Ficus carica* L.) are utilized in a wide variety of cooking and being a staple food of people in many countries.

In Thailand, the traditional and present knowledge for using the fig plants for our own pleasure are varied and increasingly popular; some are ornamentals and their young shoots nutritious vegetables, such as *Ficus virens* Aiton. and *F. superba* (Miq.) Miq.; whereas some are used as fruits and medicinal herbs, such as *Ficus racemosa* L., *F. fistulosa* Reinw. ex Blume and *F. obpyramidata* King.

In 2006, the project to investigate the species diversity of fig plants (*Ficus* spp.) was thoroughly conducted in Knao Nan National Park, through which the relevant data and fresh materials were intensively collected both within the park ís boundary and its environs. The obtained data were divided into two parts: firstly, those on the diversity of species just to achieve the total fig species existing naturally in the Park; plant specimens were collected and later on

*Corresponding author.
Tel. (662) 5779999 ext. 1503
E-mail : Bhanushine@yahoo.com

identified to species level by using the identification keys and detail descriptions appeared in Berg (2003a, 2003b, 2003c, 2003d, 2004), Berg and Corner(2005), Corner (1960, 1961, 1965), King 1887, 1888) and Ridley (1924). After that we treated the species data from the first part as our second part; then searching for traditional knowledge of each particular species by interviewing the local people and observing their utilization patterns and practices. We have found that ten species of fig trees are of special important to rural people who live in and around the park.

METHODS

Collecting required data on the utilization of fig species were performed in many possible ways: asking directly from the rural people by showing them clear coloured photos or illustrations, sometimes actual fruits; observing their demonstration of the cooking and/or eating processes in their houses. Local morning or evening fresh markets were surveyed for the fig fruits on sale to local consumers; and their particular preparation and cooking techniques recorded.

RESULTS

Ten species of fig plants, whose edibility and culinary practices were collected, are show in table 1, together with other relevant data on the utilization from other southern provinces or rarely from other parts of the country. The so-mentioned fruits are botanically flower receptacles. Most are eaten as fresh vegetables with some types of sauces or spicy curries; only some will be relished for their sweet, juicy pulps when fully ripe.

Table 1 Edible fig fruits and their culinary utilization

species	Part used	Utilization
Ficus chartacea (Wall. ex Kurz) Wall. ex King;	Young fruits	Young fruits used as fresh vegetable;suitable for eating with chili shrimp-paste sauce or with local curry. The same culinary practice with those in Krabi province.
Ficus racemosa L.	Young fruits	Young fruits are cooked mixed in spicy curry. in Trang province, they are relished as fresh vegetable
Ficus auriculata Lour.	Young fruits, Ripe fruits	Fruits when still young are prepared mixed in spicy curry. The consumed ripe fruits have jelly-like pulps with good smell and sweet taste. In the North, La-hu people in Chiang Rai province use its tender shoot in preparing curry.
Ficus variegata Blume	Young fruits	Young fruits cooked mixed in curry or eating fresh with chili shrimp-paste sauce or with spicy curry. These same culinary prac tices also performed by the people in nearby Surat Thani province.
Ficus semicordata Buch. - Ham. ex Sm.	Ripe fruits	Female fruits bearing numerous seeds when ripe have good smell and strawberry-like taste; be caution, too much consumption can give you a diarrhea.

species	Part used	Utilization
Ficus fistulosa Reinw. ex Blume	Young fruits	The most popular and well-known edible fig fruit in the South. Fresh raw fruits are eaten with chili shrimp-paste sauce or spicy curry. Sometime they are cooked mixed in beef curry.
Ficus lepicarpa Blume	Young fruits	Both young and mature fruits are cooked mixed in the curry.
Ficus schwarzii Koord.	Young fruits	Young fruits are used as fresh vegetable, eating with chili shrimp-paste sauce or with spicy curry. The more older fruits are needed to be boiled first then eating them in the same ways as you do with the young fruits.
Ficus scortechinii King	Ripe fruits	When ripe the female fruits will give off good attracting aroma and providing a strawberry-like taste. Containing inside too many seeds make them attractive only to local children.
Ficus obpyramidata King	Young fruits	Young fruits are eaten as fresh vegetable with chili shrimp-paste sauces or chili soups. The older fruits can be cooked mixed in chili beef soups; before mixing they should be boiled and cut into pieces; the proportion of old figs is about 2/3 of beef content. After cooking the figs will taste like the sweet potatos. This culinary practice is well-known among the southerners of Thailand.

DISCUSSION AND CONCLUSION

Ten species of native fig plants whose fresh and ripe fruits were found to be utilized as local food sources among the southerners in and around the areas of Khao Nan Nation Park in Nakhon Si Thammarat province. Only one species is classified in the subgenus *Ficus*, i.e. *Ficus chartacea* (Wall. ex Kurz) Wall. ex King; and the rest of nine in the subgenus Sycomorus, they are *Ficus racemosa* L., *F. auriculata* Lour., *F. variegata* Blume, *F. semicordata* Buch. -Ham. ex Sm., *F. fistulosa* Reinw. ex Blume, *F. lepicarpa* Blume, *F. schwarzii* Koord. *F. scortechinii* King and *F. obpyramidata* King. Fresh fruits are mainly used as fresh vegetable or cooked mixed in the curry. Ripe fruits are wholly consumed as desserts.

We can categorize all the edible figs into 3 groups based on their condition of edibility and utilization practice as:-

1) Young fruits as vegetable only; includes those providing young, immature fruits to be used as fresh vegetable for eating with sauces or cooking mixed in spicy curries. Thye have tasteless ripe fruits. They include *Ficus racemosa* L., *F. variegata* Blume, *F. fistulosa* Reinw. ex Blume, *F. lepicarpa* Blume, *F. schwarzii* Koord. and *F. obpyramidata* King.

2) Ripe fruits as fruit only; those species having ripe fruit with soft pulps, good aroma and strawberry-like taste; though some contain-

ing too many seeds and eating in excess can have a diarrhea. Only two species, i.e. *F. semicordata* Buch. -Ham. ex Sm. and *F. scortechinii* King.

3) Fruits as both vegetable and fruit; only *F. auriculata* Lour. is grouped here; it provides the locals young fruits as vegetable and female fruits as fruit.

Most collected data were intensively gathered from the middle-aged to old-aged adults which were older than 30 years of age, while the young could contribute very few information. We have the same opinion that this survey does reflect quite a serious problem to the future of the country. If the younger generations have very little knowledge or none at all about their traditional way of life and ignore the essential intellectual knowledge of Thai culture, how the future of the country would be when they growing up. So we have made an attempt to compile and distribute this valuable knowledge to our beloved society in general and our fragile nature in particular.

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