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ETHNOBOTANY OF MORACEAE IN MEGHALAYA NORTH- EAST INDIA

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ABSTRACT
Indigenous people of Meghalaya have ethnobotanical utility of 19 species of plants belonging to 3 genera; *Artocarpus, Ficus* and *Morus* under the family Moraceae. Fruits of all these plants are eaten raw or cooked or pickled. Young vegetative shoot of *Ficus virens* sre eaten as vegetable. Woods are used as fuel woods and timber. Leaves and young shoots are lopped as fodder for stallfed cattle to supplement paddy straw during winter. Young leaves of *Morus australis* and *M. serrata* are used for rearing silkworms. Children in the village use latex from the fruits of *Artocarpus heterophyllus* to make sticky gum for hunting birds.

Keywords: Ethnobotany, Moraceae, Meghalaya

INTRODUCTION
Meghalaya is one of the seven states of northeast India, situated between 25 ^{0}47'-26^{0}10' N latitude and 89^{0}45'-92^{0}47' E longitude covering an area of 22,429 sq.km. It is consisted of seven districts viz., South Garo Hills, West Garo Hills. East Garo Hills, West Khasi Hills, East Khasi Hills, Ribhoi and Jaintai Hills. Meghalaya is bordered on the Northwest, and East by Assam, South and Southwest by Bangladesh. The state is a conglomeration of undulating hills with an East West orientation. It represents a picturesque landscape of plateaus, lakes, waterfalls and valleys. The conducive climate together with the geographical position which includes a large number of luxuriantly growing species from the family Moraceae. The indigenous people of Meghalaya include Khasi, Garo and Jaintia who have their respective dialect, distinct ways of life, belief, traditions, cultural heritage and rich plantlore that offer tremendous scope for ethnobotanical studies (Hazra 1981, Kharkongor & Joseph, 1981). Ethnobotany in general deals with the documentation of both abstract and concrete relationship of plants with indigenous people.

The family Moraceae includes plants like trees, shrubs, or herbs often with milky latex. Leaves usually alternate rarely opposite, simple or lobed; stipules deciduous. Inflorescence hypanthodia or catkins. Flowers small monoecious or dioecious; perianth lobes three or four, free or connate; equal or unequal, smooth or pubescent; stamens varies from one to four; single chambered; fruits achenes or drupes often aggregated into fleshy syncarp (Balkrishnan 1983, Joseph 1982, Kanjilal *et al.*1940).

MATERIALS AND METHODS
Present ethnobotanical exploration was conducted in Khasi, Garo and Jaintia hills of Meghalaya at regular trimonthly intervals during 1991-1993. Each visit lasted for 1-2 days. The informations regarding the utility of wild plants were collected by personal observation and interview with local senior men and women. Local names of the plants were carefully noted down. Voucher specimens were collected at flowering and fruiting period and identified with the help of Botanical Survey of

India Eastern Circle, Shillong. Voucher specimens are deposited in the Herbarium of Department of Botany in St. Anthony's College, Shillong.

ENUMERATION

The species are arranged alphabetically, each followed by local name in Khasi (K) , Garo (G) or Jaintia (J), locality, voucher specimen number and salient features. This is appended with a brief note in the parts of the plants used and the mode of utilization. Some of the species are illustrated.

Artocarpus chaplasha Roxb., Bol- Sram (G), Dieng-soh-ram (K), Burnihat, 0173, lofty deciduous tree with spreading crowns, fruits are eaten raw or cooked, leaves are used for making dishes, woods for making soft timber.

A. gomezianus Wall., Dieng-soh-ram (K), Umsaw, 0008, largedeciduous tree with oval crown and brownish grey bark, fruits are eaten cooked, leaves and twigs lopped for fodder, woods used for timber and fuelwood.

A. heterophyllus Lamk., Dieng-sophan (K), Burnihat, 0132, large evergreen trees with grey bark and dense sub-orbicular crown, immature fruits are eaten cooked or pickled, ripe fruits are eaten raw, short twigs with leaves are lopped for fodder, woods used for good quality timber, children use latex from fruits to make sticky gum for hunting birds.

Ficus auriculata Lour., Thebol (G), Mawiong, 0212, medium sized deciduous tree, fruits are eaten raw, leaves are lopped for highly palatable fodder.

F. benghalensis L., Gonak (G), Jorabat, 0057, large evergreen tree with brownish grey bark, fruits are eaten by children, twigs heavily lopped for fodder throughout the lean period during October to May.

F. bhotanica King ex Hook.f., Soh-syrme-blang (K), Nongstoin, 0172, shrubs or small tree with smooth grey bark, fruits are eaten raw, long shoots with leaves are lopped for fodder.

F. fulva Reinwardt, Dieng-surisoh (K), Umshing, 0019, 0027, erect shrub with dense hairs and yellowish grey bark, fruits are eaten raw, long shoots are lopped for palatable fodder.

F. gasparriniana Miq., Soh-syrmeh-blang (K), Nongstoin, 0088, shrubs with greenish bark, fruits are eaten raw, leaves are lopped for fodder.

F. hirta Vahl., Dieng-soh-rompian (K), Mawiong, 0056, shrub or small tree with warty bark, ripe fruits are eaten raw, long shoots with leaves are heavily lopped for palatable fodder.

F. hispida L., Dieng-lapong (K), Jorabat, 0135, medium sized tree with ovoid crown, fruits are eaten cooked or pickled, leaves are used for making dishes and twigs are lopped for fodder.

F. lamponga Miq. Dieng-thalliang (K), Bol-khan-thap(G), Umshing, 0133, middle sized tree with brownish grey bark, fruits are eaten, short twigs with leaves are heavily lopped for fodder during February to May, fibers extracted from the bark.

F. neriifolia J.E. Sm., Soh-rom-blang (J), Jarain, 0106, middle sized deciduous tree, fruits are eaten raw or cooked, newly sprouted twigs with leaves are lopped during April to May for good quality fodder.

F. oligodon Miq., Ka-jiri-sim (J), Latrymbai, 0216, ripe fruits are eaten, leaves are used for making dishes, bark for extraction og fibers.

F. religiosa L., Phrap-thibrong (G), Burnihat, 0012, large deciduous tree with yellowish grey bark, ripe purple fruits are eaten, newly sprouted twigs with leaves heavily lopped for fodder during April to May.

F. semicordata J.E. Sm., Aminsep (G), Dieng-duit-lasas (K), Sohrarim,0221, small evergreen tree with blakish grey bark, ripe fruits are eaten, leaves are slashed for fodder, bark is used for fiber.

F. subincisa Buch.-Ham., Samch-blang (K), Mawiong, 0063, erect evergreen shrub, raw fruits are eaten deliciously, long shoots with leaves are slashed during December to May for palatable fodder.

F. virens Ait., Dieng-soh-poklao (K), Dieng-chiri (J), Kyrdemkulai, 0010, medium sized deciduous tre with whitish grey bark and has lax ovoid crown, yellowish ripe fruits are eaten by children, leaf buds along with stipules are eaten as vegetables or pickle, newly sprouted shoots with leaves are heavily lopped for supplementary fodder from March to May.

Morus australis Poir., Soh-lyngdykhur (K), Kyntonmasar, 0238, middle sized deciduous tree with tan brown bark, ripe blackish fruits are eaten and also marketed, silkworms are reared on matured leaves, newly flushed twigs with leaves are lopped for fodder.

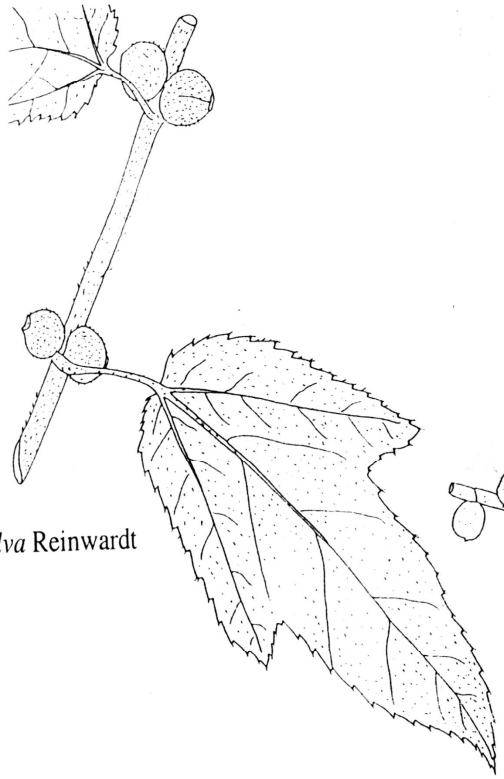
M. serrata Roxb., Dieng-soh-tungkhar (K), Mawlai, 0075, large deciduous tree with grey bark, ripe black fruits are eaten and marketed, twigs are heavily lopped for fodder during March to May, fibers are extracted from bark.

DISCUSSION

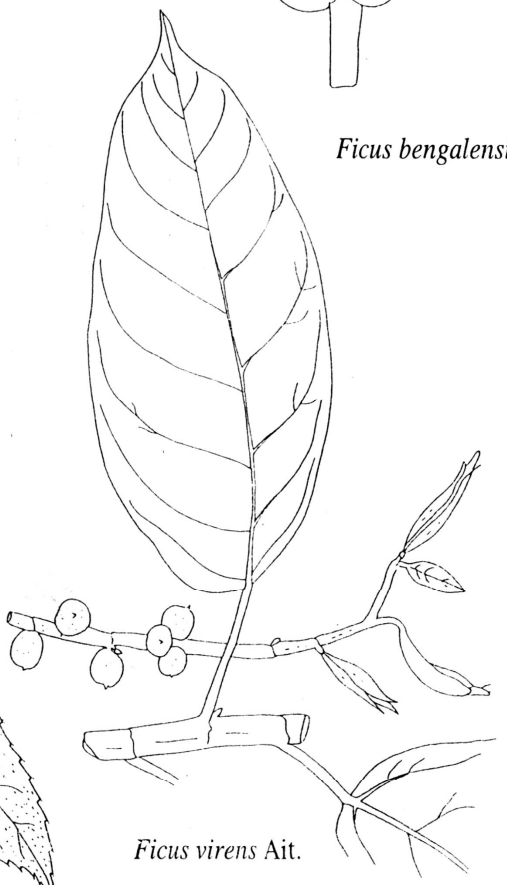
Present ethnobotanical study has documented 19 species of plants belonging to 3 genera under the family Moraceae having ethnobotanical utilitarian purposes in day to day life of indigenous people in Meghalaya. Khasi, Garo and Jaintia tribes have unique plantlore, they reside both in urban and rural areas and practice ethnobotanical utilization of different wild species of plants (Rao & Neogi 1980). Fruits of all 19 species are found to be edible, leaves and twigs of these plants yield supplementary fodder for lean period to stallfed cattle because paddy straw and grasses during these period being dry are to be supplemented by green broad leaved fodder from these plants also. Woods of some species are important for timber and fuelwood. Leaves of some species like *Ficus hispida* L. are used for making dishes. Tender leaves of *Morus australis* Poir. and *M. serrata* Roxb. are extensively used for rearing silkworm. Barks from *Ficus semicordata* Sm. is used for extracting fiber. Latex from the fruit of *Artocarpus heterophyllus* Lamk. is used to make sticky gum for the trapping of birds by rural children.

Ficus subincisa Buch. – Ham.

Ficus bengalensis L.

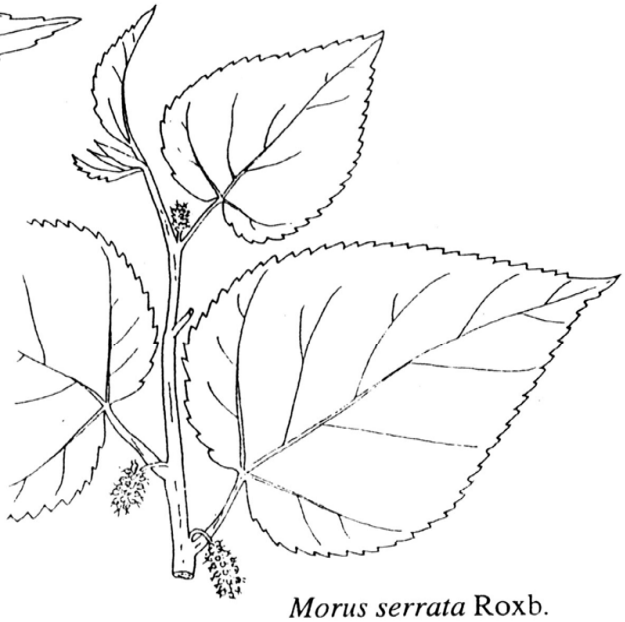


Ficus fulva Reinwardt



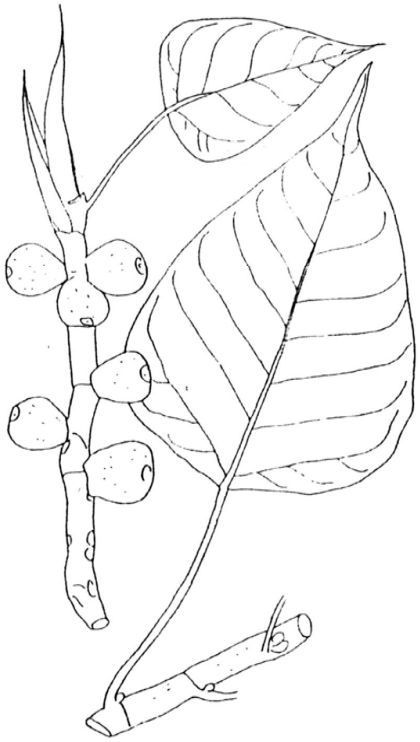
Ficus virens Ait.

Morus australis Poir.



Morus serrata Roxb.

Ficus gasparriniana Miq.



Ficus religiosa L.

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