

## PREFACE.



The main purpose of the present book is to enhance the botanical knowledge on the indigenous flora of the Addu atoll to increase the younger generation's interest in this subject and, especially, to contribute to the schoolchildren's consciousness of the vegetable kingdom they live in.

As indicated by the title of the book "The Plants in Addu", my work is dedicated to the specific flora of the southernmost atoll of the Maldives. To give more comprehensive information to botanist as well as interested people of both Maldives and foreigners, I have mentioned the names for each plant in English, Latin and Dhivehi. There are plants which have a low rank in the awareness of people only because their names are unknown or forgotten. In such cases I would like to say that a plant without a name of its own has no more "identity". Who might dare using such a plant?

I have tried to demonstrate that, in many cases, botanic terminology by itself can give a primary imagination of the "basic character" of specific plants and so inspire and develop our ability and skills in using and conserving their inherent qualities and, furthermore, the general understanding of our plants as genetic resources.

Reading this book you will also find some hints to the medical use of various plants, according to the tradition of our forefathers. By explaining the medical function I intend to sharpen the general awareness on the role of flora in olden days and to give a picture of how our ancestors lived, benefiting from all plants growing around them. But today this knowledge has lost its importance, and it is not to be practiced any longer, as the results of modern medicine are more convincing.

I have found it useful to divide the present study into two sections, namely one on some fruits and one on wood plants.

The collection of material for this book took me three and half years. I would like to especially mention the generous help provided me by Prof. Jost Gippert, Prof. Sonja Fritz, Mr. Mohammed Waheed (Madulu), Mr. Tutu Didi (Zamaaneege), Mr. Moosa Fahmi (

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**Suggestions of any kind or critical remarks will be welcome. In case the contents of my work will contribute to the knowledge of the readers and be useful to the public all efforts will be paid.**

## **ZIZYPHUS MAURITINIA.**

### **Some of the Trees In Addu Atoll.**

Scientific Name: Zizyphus Mauritinia.

Common Name: Indian Jujube.



Zizyphus is originated in China where they have been cultivated for more than 4,000 years and there are several cultivars. The trees are distributed beyond Asia centuries ago and today are grown in Russia, northern Africa, southern Europe, the Middle East and south western United States.

Zizyphus can grow in a wide range of temperatures, and virtually no temperature seems to be too high in summertime.

The tree is a small, periodically shedding tree, growing to 40 feet tall in various countries. The naturally drooping tree is graceful, ornamental and often thorny with branches growing in zigzag pattern. The wood is very hard and strong. In Maldives wood is used in house building, and as fire wood.

The fruit is a fleshy and enclosing stone, varying from round to taper and from cherry-size to plum-size. In Maldives the fruit is eaten raw and ripe.

Test in Russia indicates Zizyphus have very high vitamin C content. The fruit has been used medicinally for millennia by many cultures. One of its popular uses is as tea for sore throat.

In Maldives leaves are ground to paste and dissolved in water to wash corpse to delay muscular stiffening after death.

Scientific Name: Syzygium Cumini.

Common Name: Jambolan.

Dhivehi Name: Dhan,bugas



Syzygium is an evergreen tropical tree in the plant family Myrtaceae. The tree is Native to Bangladesh, India, Nepal, Pakistan, and Maldives.

It is also grown other areas of southern and southern eastern Asia including Philippines, Myanmar, and Afghanistan. The tree was also introduced Florida, in 1911, and it also commonly grown in Trinidad, and Tobago. It was introduced Brazil from India during Portuguese colonization. Its fruits are widely eaten by native birds.

Syzygium is fairly fast growing tree, it can reach heights of approx 30m and live for more than 100 years. Its dense foliage provides shade. Tree starts flowering from March to April. The flowers are fragrant and small, about 5mm in dia. The fruit develop by May or June and looks like large berries. The fruit has combination of sweet, mildly sour and astringent flavor.

In Maldives wood is used for furniture, and boat building. In India Syzygium wood is widely used for Railway lines as a cross bars.

In Unani and Chinese Medicine seeds are used for digestive ailments. Leaves and bark are used for controlling blood pressure. Vinegar is also made from fruit. It has a high source in Vitamin A and Vitamin C.

Scientific Name: Gracinia Cambogia.

Common Name: Gamboge Tree

Dhivehi Name: An'bihi.



Gracinia is a subtropical species of tree native to Indonesia also commonly known as Gamboge, Brindle berry, Malabar Tamarind, Kodumpulli (Kerala), Goroka (Sri Lanka). The yellowish fruit is small but pumpkin-shaped.

Gracinia is grown for its fruit in Southeast Asia, and west central Africa. It grows in moist atmosphere.

In Indian traditional medicine, this species was prescribed for edema, delayed menstruation, constipation and intestinal parasites. It was also used for rheumatism and bowel complaints.

The extract and rind of fruit is a curry condiment in India,

In Addu (Maldives) dried fruit is imported from Sri Lanka is used in the treatment for mother after child birth.

Scientific Name: Pandanus Odoratissimus

Common Name: Pandanus.

Dhivehi Name: Maakashikeyo.



Pandanus is a delicious fruit tree grown all over the Maldives. It grows from 15m to 20m height. Leaves are 1 to 2m long and 4 to 7 cm wide with Thorne edges and midrib.

Various species of the genus pandanus grow in tropical regions of Asia, Australia and the pacific as well.

Fruits are variable in shape, ovoid, ellipsoid, with tightly bunched segments in a wedge shape. Fruits are green, when ripe it turns orange, or red color.

Leaves of selected varieties are treated by soaking in the sea or heating and dying and are then used to make mats in Dhivehi called **Sataa** or **Saanthi**.

In Addu pandanus is eaten by slicing red part of flesh and mixed with sugar and banana as a desert. They use sliced fruit to make a drink (**Keyvaffen**), sort eats (**Aarus**), and mold toffee like sweet, called (**Metaa**).

Stem of the trees were used to build houses, but now are widely used to make shelters for boats, and also used to make deck of the **Holhuashi** (gossip centre). Roots were used to make paint brushes.

Scientific Name:       Mangifera Indica.

Common Name:       Mango.

Dhivehi Name:       An'bu



Mango grows approx 35 to 40m tall, with a crown radius of approx 10m. The mango tree is long lived; some specimens still fruit after 300 years. In deep soil the taproot descends to a depth of approx 6m and the profuse, wide –spreading feeder roots also send down many anchor roots which penetrate several feet of soil. The leaves are evergreen, alternate, simple; when the leaves are young they are orange-pink, rapidly changing to dark glossy red, than dark green as they mature. The flowers are produced in terminal panicles. Each flower is small and white with five petals, with mild sweet odor suggestive of lily of the valley. The fruit takes three to six months to ripen.

Mangoes have been cultivated in the Indian subcontinent for thousands of years and reached East Asia between 4<sup>th</sup> or 5<sup>th</sup> century BC. By the 10<sup>th</sup> century AD, cultivation had begun in East Africa, coming later to Brazil, West Indies, and Mexico, where a approximate climate allows its growth. The 14<sup>th</sup> century Moroccan traveler, Ibn Battuta reported it as in Mogadishu.

Mango is generally sweet, although the taste and texture of the flesh varies across cultivars, some having a soft, pulpy texture.

In Maldives mango is consumed both as ripe fruit and as an unripe fruit. Unripe fruit is very famous among pregnant women, they eat it with **Rihaakuru** (fish sauce) mixed with chilly and onion. Unripe mango is used for curry, and to make pickle (**Asaaru**).

Scientific Name: Morinda Citrifolia.

Common Name: Cheese Fruit.

Dhivehi Name: Ahigas.



The plant grows well on sandy or rocky shores. Apart from saline conditions, the plant also can withstand drought and grows in secondary soils. Thus the plant can be seen in clearings, volcanic terrain, lava strewn coasts and on limestone outcrops.

The bark of the Morinda produces a reddish purple and brown dye used in making batik and tree was widely grown for this purpose in Java. In Maldives roots are used to get yellowish dye for **Feyli** and **Libaas** weaving.

The fruits are edible, but don't have nice taste or smell. Nevertheless, the fruits were eaten by Maldivians, Indonesians, Australian Aborigines, and many more.

Morinda Citrifolia has been used for centuries by traditional healers to treat muscle and joint pain, as well as imbalance of the digestive, intestinal, respiratory, and immune systems. Today scientists are studying ways to use Morinda to treat cancer, diabetes, and even to reverse the effects of aging.

Since November 2004 Morinda fruit juice has been marketed by Tahitians which has been approved by the FSA in accordance with the Novel Food Regulation (EC) No.258/97. It has been registered with the European Union as well.

Scientific Name: Artocarpus Integrifolia

Common Name: Jack Fruit.

Dhivehi Name: Sakkeyo Gas



The fruit is believed native to the rain forests of the Western Ghats of India. It spread early on to other parts of India, Southeast Asia, The East Indies and ultimately the Philippines. The tree is often planted in central and eastern Africa and is fairly popular in Brazil and Surinam.

The tree grows approx 10 to 20m tall with a straight large trunk. Canopy is dense and mostly dome shaped.

Male and female flowers are borne in separate flower-heads. Male flower-heads are on new wood among the leaves or above the female. They are swollen, oblong from an inch to four inches long and up to an inch wide at the widest part.

Jack fruit is the largest tree-borne fruit in the world, reaching 18kgs in weight and 90 cm long and 50cm dia. The exterior of the compound fruit is green or yellow when ripe. The interior consists of large edible bulb of yellow, banana-flavored flesh that encloses a smooth, oval, light brown seed. Pulp is eaten fresh. The seeds are eaten boiled or roasted,

In Maldives wood is used in carpentry, and sometimes for boat building. Latex can be used for caulking boats.

Scientific Name:        *Passiflora Edulis*

Common Name:        Passionfruit.

Dhivehi Name:        Jumhooremeyvaa.

Addu Name:        Naarannaasi.



The fruit is a vine species of passion flower that is native to Paraguay, Brazil, and northeastern Argentina. Passion fruit is cultivated commercially in frost-free areas for its fruit and is widely grown in India, New Zealand, the Caribbean, Colombia, Ecuador, Indonesia, Peru, California, Florida, Haiti, Hawaii, Australia, East Africa, Mexico, Israel and South Africa. Passion Fruit is cultivated in Maldives as well.

The Passion fruit is round to oval, yellow or dark purple at maturity, with a soft to firm, juicy interior filled with numerous seeds. The fruit can be grown to eat or for its juice, which is often added to other juices to enhance the aroma.

Flowers of both purple and yellow passion fruit are perfect-contain both male and female parts. Pollination is essential for fruit production on passion vines. Flowers of purple passion vines normally set fruit when self-pollinated, but many yellow passion vines will not set fruit unless their flowers are dusted with pollen. Pollen from **Stigma** of the flower taken with cotton bud, and applied at the tip of **Anther** of the flower is very successful. I have tried this method and found very good. It may be hard to believe, I have tried my clean and dry finger tips for pollination and it also worked very well. Flower blooms in the evening and after pollination 2 hours are needed without rain.

Scientific Name:       Averrhoa Bilimbi.

Common Name:       Bilimbi, Cucumber Tree.

Dhivehi Name:       Bilimagu.



Possibly this tree is originating on the Moluccas, Indonesia, the specie is cultivated or found semi-wild throughout Indonesia, the Philippines, Sri Lanka, Bangladesh and Myanmar. It is common in other Southeast Asian countries. In India and Maldives where it is usually found in gardens, the bilimbi has gone wild in the warmest region of the country.

Bilimbi tree is long lived and reaches approx 5 to 10m tall, are alternate, impar pinnate and cluster at branch extremities.

Bilimbi is eaten raw or in Chantey, and curry. Additionally, the fruit can be preserved by pickling, which reduces its acidity. In Maldives Bilimbi is dried in the sun and bottled with raw chilly, salt, kept in the sun for several days and eat with rice or cooked vegetables. Some time used to add into the curry also. Bilimbi is good to remove rust spots on the cloth, what you have to do is , take two slice from a raw bilimbi sprinkle sugar on one side of each slice and place them both side of rust spot keep in the sun. When you place slice make sure sugar side touches cloth.

In Philippines, the leaves serve as a paste on itches, swelling, rheumatism, mumps, and skin eruptions. Some other places leaves are used for bites of poisonous creatures. A leaf infusion is efficient against an after –birth tonic, while the flower infusion is used for thrush, cold, and cough.

Scientific Name:        Artocarpus Altilis.

Common Name:        Bread Fruit.

Divehi Name:         Banbukeyo.



Breadfruit trees grow to a height of 22m. The large and thick leaves are deeply cut into pinnate lobes. All parts of the tree yield latex, a milky juice, which is useful for boat caulking. The trees are monoecious, with male and female flowers growing on the same tree. The male flowers emerge first, followed shortly afterward by the female flowers, which grow into a clitellum.

Breadfruit is an equatorial lowland species that grows best below elevations of 650m but is found at elevations of 1,550m. Breadfruit is able to grow in coral sands and saline soils.

Breadfruit is staple food in many tropical regions. They are very rich in starch, and before being eaten they are roasted, baked, fried or boiled. When cooked the taste is described as potato-like, or similar to fresh-baked bread.

Breadfruit is a rich source of energy. Breadfruit also contains significantly high amounts of fiber. An increased intake of fiber lowers LDL (bad) cholesterol level in the body, while elevating HDL (good) cholesterol levels in the body.

Breadfruit is roughly 25% carbohydrates and 70% water. It has an average amount of Vitamin C, small amount of minerals.

Breadfruit wood is used by locals to make furniture, door frames, boat building, and build containers, as locals call it (**Koshaara**) for storage of rice, flour, and sugar.

Scientific Name: Psidium Guajava.

Common Name: Guava.

Dhivehi Name: Feyru.



Guava is highly fragrant fruit usually with green or yellow skin, about the size of a baseball, with pink or white flesh. The guava is one of the most common fruits in the world and its sweet pulp is used in a wide range of drinks, desserts, and other food products.

Guava is a small tree, sometimes grow up to 30ft, but usually no more than 10 – 15ft. Guava grows in full sun, except in hot regions, where partial shade is an advantageous.

Guava often grows by seed, which remain viable for up to a year, sprouting can take 3-8 weeks. Better varieties are propagated by grafting, air-layering and root cuttings.

Guava's can be eaten fresh but are often used to flavor drinks, desserts, sauces, preserves, and many other food products.

Scientific Name:                    *Annona Glabra*.

Common Name:                    Pond Apple.

Dhiveh Name:                      Kalhuthumyevaa.



*Annona glabra* is a tropical fruit tree in the family Annonaceae, in the same genus as the soursop. Common name include Pond Apple, Alligator Apple, Corkwood, Bob wood, and Monkey apple.

The tree is native to Florida, the Caribbean, central and South America, and West Africa. It grows in the swamps, is tolerant of salt water, and cannot grow in dry soil. The tree grows to a height of around 10-12m. They have thin, gray trunks and sometimes grow in clumps.

The leaves are ovate to oblong with an acute tip, 8-15cm long and 4-6cm broad. The fruit is oblong to spherical and apple sized or larger, 7-15cm long and up 9cm diameter, and falls when it is green or ripening yellow. It disperses by floating to new locations, and it is edible for humans and can be made into jam. In Maldives fruit is used in the preparation of sweet drinks especially during the month of Ramadan.

Scientific Name: Moringa Oleifera.

Common Name: Drumstick tree.

Dhivehi Name: Mura'nga gas.



Moringa Oleifera will meet all your nutritional needs, take care of you medicinally, and purify your water for you. This tree actually exists for centuries the natives of northern India and many parts of Africa have known of the many benefits of Moringa Oleifera. Virtually every part of the tree can be used. The tree is native to the foothills of the Himalaya, now it is cultivated in Africa, Central and South America, Sri Lanka, India, Maldives

Leaves are used as greens, in soups, salads, curries, and omelets. The immature pods are the most valued and widely used of all the tree parts. The pods are extremely nutritious containing all the essential amino acids along with many vitamins and other nutrients. The immature pod can be eaten raw or prepared like green peas or green beans, while the mature pods are usually fried and possess a peanut-like flavor. The pods also yield 38-40% of nondrying, edible oil known as Ben Oil. 25 grams of Moringa leaf powder will give a child the following daily allowances: Protein 42%, calcium 125%, Magnesium 61%, Potassium 41%, Iron 71%, Vitamin A 272%, and

Vitamin C 22%. The flowers which must be cooked, are eaten either mixed with other foods or fried in batter and have been shown to be rich in Potassium and calcium.

In Maldives young Moringa pods are used to make curry, sambol ( **Mashuni**), and (**Kirugarudihya**). Leaves are fried with onion, chilies, and sliced semi hard skipjack fish to serve with main meal, like rice or boiled yam, breadfruit etc.

Moringa is propagated by stem cutting and seeds.

Scientific Name: Punica Granatum.

Common Name: Pomegranate.

Dhivehi Name: Annaaru.



The pomegranate is came from Iran to the Himalayas in northern India and was cultivated and naturalized over the whole Mediterranean region since ancient times. It is widely cultivated throughout India and the drier parts of Southeast Asia, Malaya, the East Indies and tropical Africa. It is cultivated in Maldives as ornamental tree. The tree was introduced into California by Spanish settlers in 1769.

Pomegranates prefer a semi-arid mild-temperate to subtropical climate adversely affects the formation of fruit. The tree grows to 2 to 5m tall.

The attractive scarlet, white or variegated flowers are over an inch across and have 5 to 8 crumpled petals and a red, fleshy, tubular calyx which persists on the fruit. The flowers may be solitary or grouped in twos and threes at the ends of the branches. In Maldives pomegranate flowers have been used with very fine sands to clean tooth.

Pomegranate are eaten raw or made into juice, which is very popular in Maldives. A 250ml glass of pomegranate juice provides approximately 50% of an adult recommended daily allowance of the vitamin A, C, and E, 10% Folic Acid, and 13% Potassium.

Scientific Name: Azadiratcha indica.

Common Name: Neem tree.

Dhivehi Name: Hithigas.



Neem tree is a large evergreen tree, in the Mahogany family. The tree grows in India, Sri Lanka, and Maldives, and has been introduced to other countries including West Africa, Indonesia, and Australia. The flowers are white and produce yellow-green fruit. All parts of the tree have medicinal property. In Maldives neem leaves are used to treat fever, smallpox, and measles. And leaves are grinded into paste and applied on fungal disease as well.

In India, neem tree is believed to be "the village pharmacy" because of its medicinal uses. And now tooth paste, body lotion, face cream are produced on wide range, and are distributed throughout the world.

In Maldives, neem sticks were used for cleaning teeth with very fine salty sand. Trunk of the tree is used for the masts of the small boats.

### **BAMBUSA VULGARIS.**

Scientific Name: Bambusa vulgaris.

Common Name: Bamboo.

Dhivehi Name: Onu.



Bamboo is the fastest growing plant on earth; it has been measured going skyward as fast as 121 cm. in 24 hours period, and can also reach maximum growth rate exceeding one meter per hour for short period time. New culms shoot up in mid-summer and reaches full height in less than 60 days. The plant is native to Himalayas, but now cultivated widely throughout tropical Asia and America.

The shoots of Bamboo are edible they are used in many Asian dishes and broth, and are available in supermarkets in different forms, fresh and canned.

In Maldives bamboo is used in construction work and in manufacturing a number of products, such as handicraft items, fishing rods, sail –bars.

### **BARRINGTONIA ASIATICA.**

Scientific Name: Barringtonia asiatica

Common Name: Sea putat.

Dhivehi Name: Ki'nbigas.



*Barringtonia asiatica* grows from 7 – 15 m. high. In Maldives this plant is cultivated west side of island as a windbreaker and sea salt spray stopper.

All parts of the sea putat are poisonous, the active poisons including Saponins. Fruits are potent enough to be used as a fish poison. The seeds have been used ground to powder and throw into the sea to stun or kill fish for easy capture, suffocating the fish where the flesh is unaffected.

The fruit is dispersed by ocean current and is extremely water resistant, and buoyant, where it can float for up to 15 years. When washed ashore, and soaked with rainwater, the seeds germinate

The wood of Sea putat tree is used by Maldivian for burning corals to get lime for building of houses and walls.

### **CALOPHYLLUM INOPHYLLUM.**

Scientific Name: *Calophyllum inophyllum*.

Common Name: Alexander Laurelwood tree.

Dhivehi Name: Funa.



*Calophyllum* is a large evergreen tree. It is Native from East Africa, southern coastal India to Malaysia and Australia. Now it is widely cultivated in all tropical region of the world, including several pacific Islands. This plant is considered as an ornamental plant, because of its decorative leaves, fragrant flowers and spreading crown.

*Calophyllum* is a slow-growing tree with a broad and irregular crown. It grows 8 to 20 meters tall.

In Sanskrit this tree is called “ punnaga” in Tamil “ Pinnai” in Malayalam “ Punnam or punna” In the Maldives it is called “ **Funa**”, name derived from Sanskrit or Malayalam.

In Maldives, wood is used in construction of boat building. It is ideal for keel of the boats and sides of the boat also.

Flowers are plucked in the morning, and made flower chain by young boys to present their lovers. Kernel of the fruit is burnt to make caulking compound for the boats.

### **CORDIA SUBCORDATA.**

Scientific Name: Cordia subcordata.

Common Name: Sea Trumpet.

Dhivehi Name: Kaani.



Cordia is an attractive tree, grows to 7 – 10 meter in height at maturity, it may grow up to 15meter. It grows better in warm coastal areas on the windward side of islands, and needs lots of sunlight, but it can tolerate semi-moist inland forests.

Cordia wood is light weight, soft, little -shrinking, long lasting, and durable. Heartwood is dark chocolate coloured, often with dark streaks. Wood is finely grained, easy to work with. In the Maldives wood is used for boatbuilding, furniture and in handicrafts. In olden days tree trunks are used for house construction and for the poles, which may last for many years. Leaves are used to dye cotton fishing line and nets to make them less visible in seawater.

Cordia is propagated by seeds and cuttings. Dry fruit is soaked in water for 24 hours to accelerate germination. Germination takes place within three to six weeks. Tree can be planted

behind a row of *Scaevola taccada*, or *Guettarda speciosa* to get protection from direct sea salt spray.

### **OCHROSIA BORBONICA.**

**Scientific Name:** Ochrosia borbonica.

**Common Name:** Corkwood tree.

**Dhivehi Name:** Dunburi gas.



The tree grows up to 15m. Trunk is straight and short. Young branches are somewhat shiny and green in colour with the leaves crowned at the end. Leaves are leathery and shiny, 14 to 20cm long and 4 to 10cm wide. The fruit, when still green, looks like a small mango, with a green fibrous shell enclosing an ovoid kernel measuring approximately 2 cm x 1.5 cm and consisting of two cross-matching white fleshy halves. Kernel of the seed contains cerberin, a potent alkaloid toxin related to dioxin, a poison found in Foxglove flower. The poison blocks calcium ion channel in heart muscle, causing disruption of the heart beat. In 2004, a team led by Yvan Gillard of the Laboratory of Analytical Toxicology in LaVoulte-sur-Rhone, France documented more than 500 cases of fetal *Cerbera* poisoning, in 1989 - 1999 in the South-West Indian state of Kerala alone. In Madagascar the poison was responsible for the death of 2% of the population (3000 people per year, 50,000 per generation.) of the central province of Madagascar. The belief in the genuineness and accuracy of trial by ordeal using this poison was so strongly held among all that innocent people suspected of an offense did not hesitate to subject themselves to it; some even showed eagerness to subject themselves to the test.

The wood is soft and has distinct odor. In Maldives wood was used in the carpentry, for tables, benches, and **Ashi** as local called it, and for fire wood as well.

The tree is propagated by seed or by cuttings.

### **PENDANUS TECTORIUS.**

**Scientific Name:** Pandanus tectorius.

**Common Name:** Wild Screwpine.

**Dhivehi Name:** Boakeyogas.



Pandanus tectorius is a small tree grow up to 5 to 6 m. height comprising separate male and female trees. The leaves are linear to about 1 meter long by 5-6 cm wide with sheathing bases. They emerge from the branches in a screw-like arrangement which gives rise to the common name. Leaves have short spines along the edges and on their midribs. Pandanus is a genus of over 600 species worldwide with about 30 occurring in Australia where they are found in tropical and subtropical areas. The plants are supported at the base by prop roots which help to anchor the plant in sandy soil. Parts of the fruit of Pandanus are edible and it is reported to form a major source of food in Micronesia. Ripe segments of the fruit and the seeds can be roasted and eaten.

In Maldives dried seeds are used by Blacksmiths as coal for their hearths. Flowers are used to decorate women's hair buns. Dried trunk is used for decking of the gossip centers (**Holhuashi**) trunk is sawn into strips for cladding of house walls. Propagation can be done by seeds and large cuttings.

### **PEMPHIS ACIDULA.**

Scientific Name: Pemphis Acidula.

Common Name: Iron Wood.

Dhivehi Name: Kuredhi.



Pemphis acidula is a species found in tropical and subtropical region of the world where it is often referred to as a shrub. It is native here in Maldives where it does not have a dormant period. As a result, the trunk size of a tree of large Pemphis can reach around 1.5 meters on girth.

Pemphis is a very strong tree grows at the beach on white sand, and can stand to heavy wind and waves. During each typhoon season (from May till end of August each year) the tree gets weak, but start growing fast vigorously upright again as soon typhoon season over.

Pemphis wood is very hard and used in Maldives for the handle of chopping knives, (**kathivalhi**) handle of local Axes, (**furoa**), caulking chisel, and mallet. Boat builders use thin branches for making dowels for side planks of the boat.

Blacksmiths use Pemphis wood to make charcoal for their hearths. And dried branches are used as fire wood. Straight trunks are used to make fences. Pemphis wood stands in the soil for years without getting rotten.

### **Pterocarpus pallidus.**

Scientific Name: Pterocarpus pallidus.

Common Name: Burmese rosewood.

Dhivehi Name: Ofi eley gas.



*Pterocarpus pallidus* is a large tree that grows up to 33 meter tall and 2 meter in diameter, large and high buttresses. Stipules caduceus, linear, are 7-15mm long, hairy on both sides. Leaves are 12-22 cm long, ovate or oblong ovate in shape, shiny and pointed at the tip. Flowers are large, 1 – 5 cm long, fragrant, showy, yellow in colour, arranged at axillaries panicles. Sometimes tree is recommended as an ornamental avenue tree. The reddish hard wood is an excellent timber in southern Asia, and most expensive timber in Philippines. Timbers are used for cabinetry, cart wheel, carving, construction, furniture, and musical instruments. Trees are planted in Puerto Rico and Maldives for shade and ornament. The young leaves and flowers are said to be eaten. The leaf infusion is used as a shampoo.

According to Hartwell (1967 – 1971), the latex is used in folk remedies for tumors, plant for cancers, especially of the mouth.

Plant grows in a wide variety of environmental conditions, ranging from deep inland forest to coast. Propagation is by seeds and cuttings.

### **SCAEVOLA TACCADA.**

Scientific Name: *Scaevola taccada*.

Common Name: Sea Lettuce.

Dhivehi Name: Magoogas



*Scaevola taccada* is found from Madagascar eastward to South-East Asia, throughout Malaysia, tropical Australia, the Pacific Islands, Hawaii and Maldives. It is cultivated and sparingly naturalized in the south-eastern United States.

It is a medium-size tree that grows up to 3 to 15 meters high. It is often found along the sandy shores, but could also be grown inland.

**Pingalap :** Leo Cornelius. Leaves can be pounded and boiled and drink the liquid to treat stomach ache in athletes. The juice of the ripe fruit can be squeezed into the eye to treat pink eye. The leaves are used to treat gonorrhoea in men. The leaves can be wilted over a fire and then placed on the breast of a young woman to enlarge her breasts. This is not for the appearance, but to enhance the milk capacity of the breast.

In Maldives the trunk of the tree is used to make fences and for fire wood. When wood is burning from the opposite end grease-like stuff comes out, and this is very good to treat for ring worms.

The white polystyrene-like core in the center of the trunk is used by Adduan to make artificial flowers and many more handicraft items.

Propagation can be done by seeds, and cuttings.

### **FISCUS BENGHALENSIS.**

Scientific Name: *Ficus benghalensis*.

Common Name: Banyan tree.

Dhivehi Name: Nikagas.



*Ficus benghalensis* is a huge, wide spreading tree that grows up to 25 m. in height. The tree produces propagating roots (locally called as “**Alhoa**” which grows downwards as slender vine. Once these roots reach the ground, they take roots and grow into woody trunk. In Maldives they are used for masts, and sail spars (**Farumaanu**) in sailing boats. It is one of the most useful and sheltering tree people make platforms under the shade and use the place for formal or informal gathering to be conducted in a cool place. The shade of the tree is ideal for elderly people to spend their time during hot sun and in the evening.

The great Banyan tree in the Indian Botanic Garden, Howrah, is considered to be one of the largest trees in the world in term of area covered.

Fruits are eaten with sugar and sometimes with “**Rihaakuru**” (tuna fish paste).

Propagation is by seed and stem cuttings. Seeds are dispersed by birds, and studies show that seeds that pass through the digestive system of the bird are more likely to germinate as well as sprout earlier.

### **THESPESIA POPULNEA.**

Scientific Name: *Thespesia populnea*.

Common Name: Tulip tree, Portia tree.

Dhivehi Name: Hirun’dhugas.

Portia tree is originally from old world, it was brought to Hawaii by Polynesian settlers. Tahitian considered it sacred and grew it near places of worship. Its name *Thespesia* means “divinely decreed” and was given by Daniel Solander who saw it in Tahiti as a member of Captain Cook’s ship.

In Maldives there is another tree identical to Portia but local call it “**Thoamaraa**” of this tree most of the trunk is hollow, cannot be used for boat building, but attractive grain and dark –red color, and is naturally oily so it can be highly polished. Wood is very good for furniture.

Portia tree is one of the important timber species of the Maldives. Timber is fine grained, heavy, strong and durable especially under water. Wood in mature tree widely used for boat building, carving. Wood is often used to carve wooden food bowls and utensils in Hawaii.

In Maldives young fruit cut open and yellow sap is applied on ringworms on the skin of the human body. Yellow dye is obtained from the flower and fruits, and red one from the bark and heartwood.

It grows well on nutrient poor coastal sandy soils. It is easily propagated by seeds and cuttings.

### **TOURNEFORTEA ARGENTEA.**

Scientific Name:       Tournefortea argentea.

Common Name:        Beach heliotrope.

Dhivehi Name:         Boashi.

Beach heliotrope is a small to medium size tree that grows approximately 4 to 6 m. tall. Heliotrope is native throughout the Indo-Pacific region, except Hawaii where it has been introduced in modern times. Heliotrope is very important tree for its ecological benefits, particularly as a barrier to salt spray, and a windbreak on exposed coasts. It can be grown near the ocean in saline conditions and in nutrient poor sands and rocky soils.

In the Maldives, wood is used for oars blades for small boats, and outer bush of propeller shaft of motor boats. The wood is also used for firewood. According to the elder people young leaves were once widely used to make salad and cook with rice, as local called it “**Boashi baiy**”. Bark and flowers are chewed with areca nut, when the scarcity of betel is high.

It can be propagated by seeds and cuttings. Seeds may take long time to germinate, and may take one year.

### **HERNANDIA OVIGERA.**

Scientific Name:       Hernandia ovigera.

Common Name: Hernandia.

Dhivehi Name: Kan'dhu.

Hernandia tree is named after Francisco Hernand ( 1514-1578 ), a Spanish botanist who was highly paid for his research into American natural history. It is handsome tree native to the East Indies. The tree grows up to 10 to 12m tall but is capable of reaching 30m height in favorable condition.

In Maldives wood is used making handicraft items, furniture, planks for coffins. In olden days the wood is also used to make tables, and boxes. Raw trunk of the tree about 6" diameter is used to put under the keel of the boat for its slippery contents in the bark to facilitate pulling the boat out of the water, and up to slipway. Poles are used to support beetle veins. Dry fruits are burned to make (**Madhan**) caulking compound for boats.

Leaves are wilted over fire and used to spread medicine and place them on the injured part of the body. The tree is propagated by seeds and cuttings,

#### **OCIMUM BACILICUM.**

Scientific Name: Ocimum basilicum

Common Name: Sweet Basil.

Dhivehi Name: Gan'dhakoalhi.

Sweet basil is low growing herb, it is considered as a culinary herb. This herb is with toothed, pointed-oval leaves. Basil must be grown under cover or in warm position in colder region.

Basil is cultivated as culinary condiment or spice. They are source of essential oil for use in foods, flavors, and fragrances. The green aromatic leaves are used in salads and can be used fresh or dried to add flavors or spices or in stews, vegetables, poultry, meat, vinegars, and pasta dishes.

Basil is originally native to Iran, India and other tropical regions of Asia, including Maldives. The Basil has been used to treat headaches, coughs, diarrhea, constipation, stomach aches, worms, and kidney malfunctions. Flowers have been used to decorate hair of the women. Seeds soaked

in water become gelatinous and are used in Asian drinks and desserts such as falooda (**haloodhaa**) or (**Sherbath.**)

### **VETIVERIA ZIZANIOIDES.**

Scientific Name: Vetiveria zizanioides.

Common Name: Cuscus grass.

Dhivehi Name: Lansimoo.

The name of Vetiveria is derived from Tamil, is a perennial grass of the Poaceae family, native to India. In Western and Northern India, it is popularly known as hkus (Hindi), giving the earlier English name cuscus. Vetiveria can grow up to 1.5 meters high and form clumps as wide. The stems are tall and the leaves are long, thin and rather rigid. Roots grow downward, 2 – 4 meters in depth. Though it originates in India, the plant is widely cultivated in the tropical regions of the world.

Vetiveria is an erosion control plant in warmer climates. It is an excellent stabilizing hedge for stream banks, terraces, and rice paddies. Vetiveria cultivated for the fragrant essential oil distilled from roots. In Maldives dry roots are used for women's hair buns, cloths worn for praying and to make hand fans.

The root powder of Vetiveria combined with honey relieves phlegm and so used in asthma, coughs, and hiccups. In such condition the smoking of Vetiveria root powder in a form of cigarette is often recommended.

### **COLUBRINA ASIATICA.**

Scientific Name: Colubrina Asiatica.

Common Name: Asian Snakewood.

Dhivehi Name: Raarohi.

*Colubrina asiatica* is especially in coastal habitats, it is aggressively outcompetes native vegetation. It is found, most often at the interface of uplands and submerged lands or between beach dune and maritime hammock. Plants grow rapidly in full sun. Its seeds are constantly dispersed at a rapid rate by ocean currents and seed eating birds may also ingest them as crop stones, producing wider dispersal range.

*Colubrina asiatica*'s leaves contain a useful saponin-like substance (Johnston 1971, in Schultz, 1992). In Hawaii and elsewhere, the plant is used medicinally and its leaves have been used as a substitute for soap in the rural areas in some countries. In the Maldives, leaves are used to alleviate inflammations and boils. For painful swellings, leaves are crushed and juice is applied on effected parts of the skin. The oil of the seeds mixed with other ingredients used to treat rheumatism and numbness in adults.

The tree is propagated by seeds. Germination is fast and growth rate is rapid in full sun.

### **MIMUSOPS ELENGI.**

Scientific Name: *Mimusops elengi*.

Common Name: Tanjong tree.

Dhivehi Name: Moonimaa.

*Mimusops* tree is an evergreen tree grow up to 8 to 15 m tall with sense, round and spreading crown. Trunk is straight. It grows throughout subtropical regions i.e south India and Andaman Island.

In Maldives, it is widely grown as a shade and ornamental tree because of its dense dark green canopy and fragrant flowers, which fill the night breeze with deep, rich very pleasant aroma. Flowers retain its odor for many days after they fall, are used to make chains for women's hair buns, and to stuff pillows.

The bark, flowers, fruits and seeds are astringent, cooling, tonic, and febrifuge. It is mainly used in dental ailments like bleeding gums, and loose teeth.

Extract of flowers used against heart diseases, and act as antitoxin. The snuff made from the dried and powdered flowers used in a disease called Ahwa in which high fever is associated with, headache and pain in the neck, shoulders and other parts of the body.

Ripen fruits is used in burning urination. The ripe fruit pounded and mixed with water is given to promote delivery in childbirth.

It is propagated by seed. Seeds are collected and removed skin and directly used for plantation. Pretreatments is not necessary. Growth rate is very slow. Seedling can be done in the nursery for about two years are used for out planting.

### **GUESTTADA SPECIOSA.**

Scientific Name: Guettarda speciosa.

Common Name: Nit Pitcha.

Dhivehi Name: Uni.

Nit picha is a large stately tree, and often grows to height of 5 to 10 m; the fruit, which believed to be peculiar to tropical islands, is of an oval shape, yellow when ripe, and grows in bunches of three or four, is about the size of a middling apple, with a large stringy core. The fruit is wholesome and palatable fruit, improving on the taste like mango. It is strongly impregnated with turpentine.

The wood is white in color, dense, heavy, hard and durable. Wood is mainly used as poles for house construction boat building, lacquer work and fire wood.

In Maldives flowers are used by young boys to make chain to present their lovers, and squeezed into the aching ears.

Tree is propagated by seeds. Cuttings are also used for propagation.

### **CALOTROPIS GIGANTEA.**

Scientific Name: Calotropis gigantean.

Common Name: Giant milkweed.

Dhivehi Name: Ruvaa.

Giant milkweed is native to Indonesia, Malaysia, Philippines, Thailand, Sri Lanka, India, China and Maldives. It is large shrub growing to 4 m tall. It has clusters of waxy flowers that are either white or lavender in color. Each flower consists of five pointed petals and a small, elegant, "crown" rising from the centre, which holds the stamens. The plant has oval, light green leaves and milky stem.

In Maldives, giant milkweed stem are kept in seawater till they become soft and bark is peeled off, and washed to get inner parts (fiber) to make fishing line for the rods. Wood is used to make charcoal and gunpowder. Roots, bark, leaves, flowers and fruits are used to treat rheumatism. The matured leaves are smeared with olive oil, wilted over fire and applied on aching body parts for relieving pain. The tree is propagated by seeds. Seeds with parachute of hairs are spread by wind when the pod is dry and opened itself.

### **CASSIA OCCIDENTALIS.**

Scientific Name: *Cassia occidentalis*.

Common Name: Coffee senna, fedegoso.

Dhivehi Names: Dhigu thiyara.

Fedegoso is a small tree that grows 5 to 8 m high and is found in many tropical areas of South America, including the Amazon, it is indigenous to Brazil, it is also found in warmer climates and tropical areas of South, Central, and North America. Its seeds are found in long seed pods, are sometimes roasted and made into coffee-like beverage.

Fedegodso has many medicinal values. Main actions are: protects liver, detoxifies liver, kills bacteria, kills fungi, expels worms, and cleanses blood. It is also relieves pain, reduce inflammation, kills cancer cells, reduce fever, reduce blood pressure.

In the Maldives, the leaves are used as laxative and widely used to make salad, roasted with dried fish, onion and dry chilly. Leaves are used to make tea also. 1 cup twice daily is a standard dosage.



