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## Some Sacred Plants of Andaman and Nicobar Islands, India

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### Abstract

The present paper describes the sacred plants and their medicinal uses in Andaman and Nicobar Islands based on intense surveys. A total of 42 sacred plant species are found in close vicinity of people of these Islands and somehow linked with God and goddess and are used in variety of ceremonies throughout the year by the various Communities.

**Keywords:** Biodiversity, conservation, traditional beliefs, tribes, worship practices

### 1. Introduction

The Andaman and Nicobar Islands are rich and unique phytogeographical region in India with higher number of endemism (Singh et al., 2014; 2020 a, b, 2021a, b; Singh and Misra; 2020; Singh; 2021). It is divided in to two groups of Islands, Andaman and Nicobar. The Nicobar groups of Islands are separated from Andaman group by 10<sup>th</sup> channels. The Andaman groups of Islands are inhabited by Negroid stock tribes viz. Great Andamanese, Onges, Sentinelese and Jarawa. The population of Great Andamanese and Onges are dwindling and they have been rehabilitated on the strait Island and Little Andaman Islands respectively. Sentinelese occupying the North Sentinel Island is still hostile. The Jarawa inhabit the Jarawa reserve located along the western parts of the South and Middle Andamans. The Nicobar groups of Islands are inhabited by the Mongoloid stock tribe's viz. Nicobarese and Shompens. The former is now in the mainstream while the latter represent another dwindling tribe. The Ranchi and Karens are the tribal communities of mainland India and Myanmar, respectively. They were brought here for timber extraction work during the British period. They inhabit the remote areas of Andaman Islands and have vast knowledge of plants along with traditional uses. Although tribals people of these islands are partially or completely depend on forest resources. The documentation of plants with their traditional uses in these Islands has been done time to time by various workers (Bhargava, 1981; 1983; Chakraborty and Rao, 1988; Lakara et al., 2012; Singh and Murugan, 2014; Ranjan et al., 2014; Mishra et al., 2016; Singh et al., 2016; Saleem et al., 2019). Other than tribes, rural people have a close relationship with nature and are also

fully dependent upon forests for food, fruits, fodder, and for their healthcare (Singh et al., 2016). This traditional worship practices and traditional beliefs show the symbiotic relation of human beings and nature and will act as conserving tool for biodiversity.



Figure 1: Map of Andaman and Nicobar Islands



## 2. Materials and Methods

The present study is based on surveys that are carried out during the year 2016-2019 to find out traditionally worshipping plants which are used in various religious activities. The information regarding traditionally worshipping plants was collected through consulting the local people through interviews, discussions and own observations during worship by local peoples. Many areas were visited to interact with people and gathered information on sacred plants. The plant species were collected and identified with the help of Herbarium sheets deposited in PBL and data were arranged alphabetically with

botanical names followed by Family, local names, and sacred significance and Medicinal uses of plants.

## 3. Results and Discussion

The authors found that numbers of plants have associated with sacred beliefs and religious importance in the Islands and are of great medicinal values. This study revealed about 42 plants species are belonging to 42 genera and 29 families (Table 1). The dominant families of sacred interest are Fabaceae and Apocynaceae (4), Poaceae (3), Arecaceae, Malvaceae, Moraceae, Solanaceae, Rutaceae and Oleaceae (2) and remaining families contributed one species.

Table 1: Enumeration of sacred plants of Andaman and Nicobar Islands

Sl. No.	Botanical name and family	Vernacular name	Sacred uses	Ethnomedicinal uses
1.	<i>Abelmoschus esculentus</i> (L.) Moench. (Malvaceae)	Mushkdana	Leaves are used in Navratna Pooja	Leaves and fruits are used to cure itches and in snake bite
2.	<i>Acorus calamus</i> L. (Araceae)	Bach	Leaves are kept under the bed as a belief to keep away evil spirits	Rootstocks are used to treat fevers, bronchitis, dysentery, leucoderma and kidney problems
3.	<i>Adenanthera pavonina</i> L. (Fabaceae)	Raktachandan	A paste made by rubbing the wood upon a moist stone is used to colour the forehead by some Saints	Decoction of leaves is used in chronic rheumatism
4.	<i>Aegle marmelos</i> (L.) Correa (Rutaceae)	Bael	Leaves and fruits are used as sacred offerings on Shivlinga	Ripen fruits are used to treat chronic dysentery and dyspepsia
5.	<i>Albizia lebbek</i> (L.) Benth. (Mimosaceae)	Siris	Leaves along with the leaves of mango are hung over the door of the birth chamber of the baby	Powdered root is used to strengthen the gums and the flowers are externally applied to boils and swellings.
6.	<i>Areca catechu</i> L. (Arecaceae)	Betel Nut, Supari.	Nuts are used in many religious ceremonies. Besides, they are also offered to Lord Ganesha	Nuts are used to treat urinary disorders
7.	<i>Azadirachta indica</i> A. Juss. (Meliaceae)	Neem, Nimba	Leaves are placed in the mouth as an emblem of grief returning from funerals and whole plant is worshiped as goddess (Maa Bhagwati Devi)	Leaves are used to treat diabetes, dental and gum problems
8.	<i>Calotropis gigantea</i> (L.) R. Br. (Asclepiadaceae)	Aak, Arka	Flowers are used in the worship of Lord Shiva	Powdered flowers are used in colds, coughs, asthma and indigestion
9.	<i>Capsicum annuum</i> L. (Solanaceae)	Chilli, Lalmirch	Fruits are burnt or hanged on the doors to ward off evil spirits	Paste of seeds is used in tonsillitis
10.	<i>Catharanthus roseus</i> (L.) G. Don (Apocynaceae)	S a d a b a h a r, Madagascar	Flowers are used as sacred offerings	Extract of whole plant is taken as a remedy for diabetes
11.	<i>Cassia fistula</i> L. (Caesalpiniaceae)	Golden shower, purging cassia, Indian laburnum	Flowers are used as sacred offering.	Plant is used in the treatment of inflammatory swellings and as a cleaning agent for ulcers and wounds

Table 1: Continue...



Sl. No.	Botanical name and family	Vernacular name	Sacred uses	Ethnomedicinal uses
12.	<i>Citrus limon</i> (L.) Burm.f. (Rutaceae)	Lemon	Fruits are hanged over the doors of houses as belief that it will protect them from evil spirits	Fruit juice is used to treat Acne and other Skin Problems
13.	<i>Clitoria ternatea</i> L. (Fabaceae)	Aprajita	Flowers are offered to Goddess Durga and Lord Vishnu	Roots are used to treat asthma and tuberculosis
14.	<i>Cocos nucifera</i> L. (Aracaceae)	Coconut, Nariyal	Leaves are used to make dresses and wear on the various religious ceremonies by the tribal people and fruit is used as sacred offering	Flowers are used in diabetes, dysentery and leprosy
15.	<i>Cucumis sativus</i> L. (Cucurbitaceae)	Cucumber	Fruits are employed in worship of snakes on Nagpanchami	Fruits are used in fever, bronchitis, jaundice and in burning sensation
16.	<i>Curcuma longa</i> L. (Zingiberaceae)	Turmeric, Haldi	Paste of rhizome is applied on various ceremonies, especially on marriages	Paste of rhizome is applied to sprains and wounds
17.	<i>Cynodon dactylon</i> (L.) Pers. (Poaceae)	Bermuda grass, Dup grass	Dup grass is used in many religious ceremonies like havans and marriage ceremonies. Also used as offering for Lord Ganesha	Leaves are used in cuts and wounds, diarrhoea and dysentery
18.	<i>Datura metel</i> L. (Solanaceae)	Datura, Thorn-apple	Flowers and fruits are used as a sacred offering of Lord Shiva	Leaves and roots are used to treat fever, diarrhoea and skin diseases
19.	<i>Elaeocarpus tuberculatus</i> Roxb. (Elaeocarpaceae)	Rudraksha	Nuts are made into rosaries which are worn by Local peoples	Fruits are used to treat in coughs, bronchitis and fevers
20.	<i>Ficus religiosa</i> L. (Moraceae)	Fig tree, Peepal	Tree is worshiped on every Saturday for Lord Shani	Bark is used to treat gonorrhoea, ulcer and wounds
21.	<i>Ficus benghalensis</i> L. (Moraceae)	Bargad	Tree is specially worshiped on Vat Savitri Amavasya	Latex is applied topically to treat toothache, bruises, rheumatic joints and lumbago
22.	<i>Hibiscus rosa-sinensis</i> L. (Malvaceae)	Shoe-flower, Gurhal	Flowers are offered to various Gods and Goddess	Leaves used to treat gonorrhoea
23.	<i>Jasminum multiflorum</i> (Burm.f.) Andrews (Oleaceae)	Downy Jasmine, Indian Jasmine	Flowers are offered to various Gods and Goddess	Flowers are applied externally in headache and skin diseases
24.	<i>Lawsonia inermis</i> L. (Lythraceae)	Mehndi, Henna	Leaf paste is applied on hands of the bride in marriage ceremonies as a sacred belief	Leaf paste is applied on nails to protect from decay and diseases
25.	<i>Mangifera indica</i> L. (Anacardiaceae)	Mango, Aam	Leaves beaded along with flowers of <i>Nerium oleander</i> L. (Toran) and used as sacred offering to various gods and goddesses and followed which will be later hanged on the doors	Powder of seeds is prescribed in leucorrhoea and in piles

Table 1: Continue...



Sl. No.	Botanical name and family	Vernacular name	Sacred uses	Ethnomedicinal uses
26.	<i>Musa</i> sps. (Musaceae)	Jungali Kela	Whole plant especially pseudostem with leaves, inflorescence bud, and fruits are placed at the entrance of the temple, houses and other worship places. Note: Wild species of Banana ( <i>M. acuminata</i> Colla, <i>M. bulbisiana</i> Colla, <i>M. indandamanensis</i> L. J. Singh, <i>M. paramjitiana</i> L. J. Singh) along with rachis of Cycads ( <i>Cycas dharmrajii</i> L. J. Singh, <i>C. pschannae</i> R. C. Srivast, <i>C. zeylanica</i> (J. Schust.) A. Lindstr. & K.D. Hill) and Ferns (especially <i>Pteris vittata</i> L.) is used as sacred offerings on special occasions as per the availability	Powder of seeds is eaten to reduce and control diseases related to digestive disorder, diabetes and jaundice
27.	<i>Nerium oleander</i> L. (Apocynaceae)	Indian oleander, Kaner	Flowers are used as sacred offerings to various gods and goddesses	Leaf paste is applied in ring worm and other types of skin diseases
28.	<i>Nyctanthes arbor-tristis</i> L. (Oleaceae)	Night jasmine	Flowers are used as sacred offering	Leaves are used in fever and rheumatism and chronic fever
29.	<i>Ocimum tenuiflorum</i> L. (Lamiaceae)	Tulsi, Sacred basil	People plant Tulsi in their home and worshipped as the avatar of Goddess Lakshmi. Leaves are used as sacred offering	Root decoction is given in malarial fever. Leaves are used as a remedy for earache, urinary disorders and toothache
30.	<i>Oryza sativa</i> L. (Poaceae)	Rice	Rice is used as sacred offering in various ceremonies	Rice gruel is used to treat gastric ulcers, small pox and measles
31.	<i>Phyllanthus emblica</i> L. (Euphorbiaceae)	Indian gooseberry, Amla	Many rituals are performed under this tree as a belief	Fruits are used to treat anaemia and jaundice
32.	<i>Piper betle</i> L. (Piperaceae)	Betel, Pan	Leaves with nuts of <i>Areca catechu</i> are used as sacred offerings for various Gods and Goddess	Heated leaves are applied as a poultice on the chest against cough and asthma
33.	<i>Plumeria rubra</i> L. (Apocynaceae)	Temple tree	Flowers are used as sacred offerings	Bark is used in tumours and paste of leaves is applied on swellings
34.	<i>Polyalthia longifolia</i> (Sonn.) Thwaites (Annonaceae)	Indian fir, Debdari	Plant is considered to be sacred met near the temples and also used in marriage ceremonies to cover mundapams	Leaves are used to treat fever, mouth ulcers and skin infections
35.	<i>Rosa chinensis</i> Jacq. (Rosaceae)	Gulab, Rose	Flowers are used as sacred offerings	Fruit is applied to sprains, ulcers and wounds
36.	<i>Saccharum officinarum</i> L. (Poaceae)	Sugar cane	Whole plant is kept on the doors on Tamil New Year (Pongal). Peoples also offered the plant to God and Goddess on special occasion like Chatt Pooja and Ekadashi	Cane juice is used to treat jaundice and low blood pressure
37.	<i>Santalum album</i> L. (Santalaceae)	Chandan, Sandal	Paste obtained by rubbing its woods is used to apply in religious ceremonies	Paste of wood is applied to treat headache and skin diseases
38.	<i>Saraca asoca</i> (Roxb.) de Wilde (Fabaceae)	Ashoka tree, Ashok	This plant is considered as sacred plant and hence it is planted near the temples	The stem bark of the tree is used to cure dysentery, piles and ulcers



Sl. No.	Botanical name and family	Vernacular name	Sacred uses	Ethnomedicinal uses
39.	<i>Sesbania grandiflora</i> (L.) Poir. (Fabaceae)	Bak, Basma	Leaves are offered to lord Ganesha and also used in other sacred offerings	Juice of flowers is used in nasal catarrh and headache
40.	<i>Syzygium cumini</i> (L.) Skeels (Myrtaceae)	Black plum, Jamun	Fruits are offered in Ganesh puja.	Fruits are used to treat diabetes, diarrhoea
41.	<i>Tabernaemontana alternifolia</i> L. (Apocynaceae)	Indian rosebay, Sugandhbala	Flowers are used as scared offerings	Roots are chewed to get relief from toothache
42.	<i>Ziziphus mauritiana</i> Lam. (Rhamnaceae)	Indian jujube, Ber	Ripen fruits are used as sacred offering for Lord Shiva	Bark of its stem is used in diarrhoea, dysentery



Plate 1: A: *Ocimum tenuiflorum* L. (Lamiaceae) planted near house as sacred belief, B: Leaves of *Aegle marmelos* (L.) Correa (Rutaceae) as sacred offering, C-D: Leaves of *Mangifera indica* L. (Anacardiaceae) as sacred offering, E: *Ficus religiosa* L. (Moraceae) planted near temple for worshipping, F: *Musa* sp. placed at the entrance of a temple as a sacred belief.



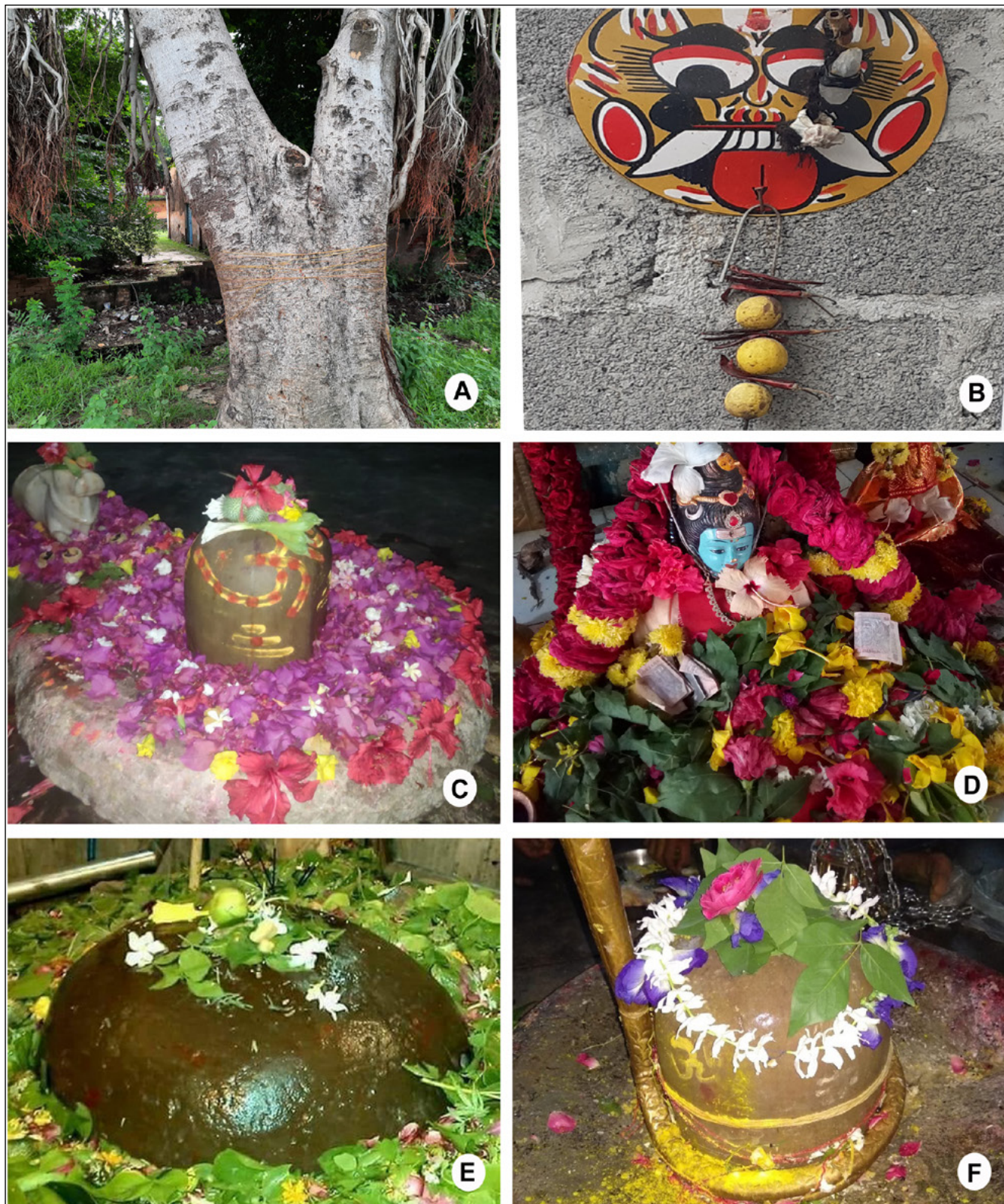


Plate 2: A: *Ficus benghalensis* L. (Moraceae); B: *Citrus limon* (L.) Osbeck (Rutaceae) and *Capsicum annuum* L. (Solanaceae) hanging at entrance as sacred belief, C-F: Flowers and fruits of *Datura metel* L.(Solanaceae), Flowers of *Rosa chinensis* Jacq. (Rosaceae), *Tabernaemontana crista* Roxb. (Apocynaceae), *Hibiscus rosa-sinensis* L. (Malvaceae), Leaves of *Aegle marmelos* (L.) Correa (Rutaceae) used as sacred offering.



#### 4. Conclusion

Peoples of the Andaman and Nicobar Islands are associated with traditional worship practices which indicate that plants are always associated with human beings and hence used in various religious activities and traditional medicine practices. The religious aspects of plants of the Andaman and Nicobar Islands are not much explored. Therefore, it is need of the hour to conserve the traditional knowledge and also to pass on this to our present and future generations effectively. The religious customs protect the forests where deities reside which can be preserved as sacred grooves.

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