

Diversity of Ethnomedicinally important Mangrove species of Maharashtra

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ABSTRACT

Mangrove ecosystem is one of the world's most productive ecosystems supporting genetically diverse communities of terrestrial and aquatic flora and fauna. They provide variety of direct and indirect benefits to human beings. Mangrove plants are found to have varied medicinal values and are used in traditional medicine by locals dwelling around coastal line of Maharashtra. However due to urbanization and natural calamities there is a threat of loss and imbalance of mangrove and coastal ecosystem. The need for stability, conservation and management of mangrove ecosystem of coastal Maharashtra with special reference to their ethnomedicinal uses is highlighted in this paper.

Key words: mangroves, ecosystem, medicinal uses.

Maharashtra is blessed with a beautiful diversified long coastal line which extends from Mumbai to Vengurla. The plants growing along the coast line are diversified of which mangroves are one of the important species that play major role in conservation of coastal ecosystem.

Mangroves is an ecological term referring to a taxonomically diverse range of trees and shrubs that form dominant plant communities in tidal, saline wetlands around the tropical and subtropical coastline. Economically mangroves are a great source of timber, fuel, poles, tanning materials. Some species also have medicinal values which are yet to be

explored. So a survey was carried out in coastal belt of Maharashtra to document ethnomedicinal value of mangrove plants.

Area under study: The coastal line of Maharashtra is spread over 720km comprising of six districts viz. Thane, Greater Mumbai, Mumbai, Raigad, Ratnagiri, Sindhudurg. The coastal zone of Maharashtra extends from 15°43'N and 73°30'E. The temperature varies from 25°C and 35°C. The climate is warm and humid through the year with average rainfall 2286 m-2540m and average humidity is 60-90%.

The present paper highlights eight

mangrove plants frequently used by local tribals to cure common diseases.

The the area under study was visited frequently and information regarding mangrove ecosystem, habitats and local medicinal uses was recorded with the help of elderly folk

and local costal dwellers. A critical systematic documentation was done thereafter. Relevant literature¹⁻⁵ has been consulted.

The list of plants with their botanical name, family and uses is tabulated in table - 1 given below.

Table-1. Showing botanical name, family and medicinal uses of mangrove plants of Maharashtra

| Sr. No. | Botanical Name | Family | Medicinal Uses |
|---------|--|----------------|--|
| 1 | <i>Acanthus ilicifolius</i> Linn. | Acanthaceae | a) Decoction of bark with equal amount of honey and pinch of cumin powder is given in treatment of dyspepsia. b) Paste of leaves is applied for joint pains, in case of snake bite, skin diseases and kidney disorders. |
| 2 | <i>Avicennia marina</i> (Forsk) Vierh. | Avicenniaceae | a) Leaves used in treatment of rheumatism, small pox, ulcers. b) Used as analgesic |
| 3 | <i>Avicennia officinalis</i> Linn. | Avicenniaceae | a) Poultice of unripe seeds is applied on boils and abscesses. b) Extract of leaves used in treatment of stomach disorders, asthma, leprosy. |
| 4 | <i>Exocoecoria agallocha</i> Willd | Euphorbiaceae | a) Decoction of leaves-1/4 cup is given twice a day for curing epilepsy. b) Decoction of leaves applied locally to cure ulcers. |
| 5 | <i>Rhizophora apiculata</i> Blume | Rhizophoreceae | a) Leaves are used in treatment of nausea, vomiting, diarrhoea. b) Extract of leaves used as antiseptic and used in treatment of typhoid, hepatitis |
| 6 | <i>Rhizophora lamarckii</i> Mart | Rhizophoraceae | a) Extract of leaves used in treatment of liver disorders. |
| 7 | <i>Rhizophora mucronata</i> Lam. | Rhizophoraceae | a) Powder of bark is used to control diabetes. b) Powder of bark is applied to stop external bleeding. |
| 8 | <i>Sonneratia caseolaris</i> (L.) Englar | Lythraceae | a) Poultice of fruits is applied on sprains and swellings. b) Used as astringent and antiseptic. c) Used in treatment of piles and stopping haemorrhage. |

A number of mangroves and their associates show biological activities such as antibacterial, antifungal, antiviral, pesticidal properties. Mangroves are widely used by mangrove dwellers especially *Acanthus ilicifolius* for skin disorders, boils and wounds. Medicines derived from leaves or barks of mangroves (ashes or infusion) are widely used for skin disorders including leprosy, small pox and sores by local dwellers traditionally. So a critical study of physical, chemical and biological properties of above mentioned plants needs to be undertaken keeping a birds eye view on discovery of new medicines for human welfare without disturbing the ecology and vegetation.

The rapid intrusion of modern civilization into coastal areas due to urbanization and tourism industry is leading to deforestation and imbalance of mangrove ecosystem. So a sound

planned strategy is required to conserve mangrove ecosystem.

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