## Chapter 2

### Plant Selection

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CHAPTER-2
PLANT SELECTION

2.1. Description and past investigations on the plants selected for the study

Survey of literature and our interaction with local healers and users during the fields’ survey revealed that the following plants are accredited with medicinal properties and contain different classes of secondary metabolites of pharmacological importance. Further the roots of *Kandelia rheedei* Linn. and leaves of *Euphorbia lopogona* Linn. are used as local herbals for the treatment of Diabetes. Hence the description and past investigation on these plants are given here under.

2.2. *Kandelia rheedei* Linn

![Image of Kandelia rheedei Linn](image)

Fig. 2.1. Kandelia rheedei Linn
Description

- *Kandelia rhedei* belongs to family called Rhizophoraceae. It grows up to 6m height with profuse branching. It is an evergreen tree with imparipinnate leaves. Each leaf is firm and 3.8 - 6.3 cm in length. It has 3 - 5 leaflets. Leaves are distant, alternate and suborbicular in arrangement. The plant has small flowers with pale yellow color in axillary panicles. Flowers are usually shorter in length than the leaves. Pods grow up to 3.8 - 10 cm long and are lanceolate.

Distribution

- Kandelia rheedii, also called as *K. caimdel*, is a mangrove plant widely distributed across Indian subcontinent. It is mostly found in Bengal delta region.

Medicinal uses

- Traditionally about 100 mangrove and related plants are found to be useful in the treatment of diabetes and tuberculosis. However only a few among them have been scientifically evaluated and reported.

- In addition to this, the ethnopharmacological consequence encouraged the use of plant for the treatment of various ailments like rheumatism, painful arthritis, bronchitis, inflammation. It can also be used as antioxidant, free radical scavenger, antidiabetic, antinociceptive and hepatoprotective agent. Owing to their immense medicinal value they can provide valuable therapeutic agents.
2.3. Euphorbia lopogona

Fig.2.2. Euphorbia lopogona

Distribution:

- *Euphorbia lopogona*: is succulent plant having some parts that are more than normally thickened and fleshy, usually to retain water in arid climates or soil conditions. It is a species of flowering plant prostrate or scandent herb in the EUPHORBIACEAE. It is found from Southeast China to tropical Asia and India was traditional folk medicine in India and it is available throughout the Andhra Pradesh.

Description:

- Shrubs or trees. Leaves petiolate; stipuls interpetiolar, flowers packed into globose heads, thorny stem, fruits are combined into a fleshy globes mass of 2 celled pyreennes with very thin septa. Seeds few in each cell, not winged.
Medicinal uses

- *Euphorbia lopogona* is the traditional and folk medicinal herb used as aphrodisiac, cooling, indigestible, galactagogue, astringent, blood disease, stangury, vata, kapha. Roots are aphrodisiac, cure leprosy and dysentery. In Ayurveda, the leaves and stems are used to treat the liver diseases.