

Botanic name : *Phyla nodiflora* (L.) Greene

Common name : Frog Fruit, Jal Papli, Vasir Vasuka (Sanskrit)

Family : Verbenaceae

Habitat : Terrestrial; wetlands

Distribution : Native to Africa, temperate and tropical Asia, Australasia, Europe and tropical America; distributed in the Indian subcontinent

Description : Perennial aromatic herb with spreading growth, leaves ovate or oblanceolate with serrate leaf margin in opposite arrangement, leaf base cuneate, apex rounded, upper part deeply serrate, hairy.; flowers 2-lipped, bracteates, ring of small, white to pink, surround a purple ovoid flowering head (1 - 3 cm long) spike near the top; fruit a capsule that break up into nutlets

Phytochemicals: Triterpenoids, flavonoids (Nodifloretin, Nodifloridin A and Nodifloridin B, β -sitosterol glycoside, stigmasterol glycoside), phenols, steroids, flavone glycoside (lippiflorin A and lippiflorin B, 6-hydroxyluteolin-7-Oapioside and luteolin-7-O-glucoside, 6-hydroxyluteolin, nepetin, demethoxycentaureidin, and batatifolin), two phenylpropanoid compounds acteoside and 2'-O-acetyechinacoside, flavones sulfates such as Hispidulin 7-sulfate, Hispidulin 7,4'-disulfate, Jaceosidin 7,4'-disulfate, Nepetin 3',4'-disulfate, Nodifloretin 6,7-disulfate, 6-Hydroxyluteolin 6,7-disulfate, Nodifloretin 7-sulfate, 6-Hydroxyluteolin 6-sulfate, 6-Hydroxyluteolin 7-sulfate, Jaceosidin 7-sulfate, Nepetin 7-sulfate, and Hispidulin 4'-sulfate, along with the known compounds Nepetin, Hispidulin, and Jaceosidin, Halleridone and Hallerone as their acetyl derivatives, a new triterpenoid lippiacin, a new steroid 4', 5'-dimethoxybenzoxyl stigmasterol in addition to known stigmasterols and β -sitosterols were isolated in different extracts of plant parts as bioactive phytochemicals

Medicinal/Economic uses : The plant has been used as antibacterial, astringent, anodyne, deobstruent, diuretic, antidandruff, larvicidal, anti-diuretic, antidiabetic and hypolipidaemic, carminative, emmenagogue, parasiticide, emollient, febrifuge, and refrigerant. Reportedly useful in the treatment of blenorrhoea, piles, anorexia, lithiasis, ischuria, acid reflux, constipation, pain in the knees, and hookworm infection. An infusion is drunk as a post-partum tonic. The juice of the plant is cooling and is used to relieve minor gastric troubles, fevers, coughs and colds. The aroma of the inhaled plant is breathed in to treat coughs and colds. Traditionally, the plant has been used to treat constipation and knee pain. Plant decoction is employed in uraemia. Leaves and immature stalks are used to make infusions that are administered to children with indigestion or women that have recently delivered a baby. A paste produced from the plant is also applied to boils and ulcers. Freshly pressed juice from the leaves is used on gums to stop bleeding; infusion of leaves are found effective in indigestion and to women after delivery. A paste or poultice is also applied to swollen cervical glands, to erysipelas, burns, ripen boils, and to chronic indolent ulcers whereas root juice is effective against gastric troubles. The plant is ornamental; also used as green forage and manure.