

REVIEW ON *MUSSAENDA PHILIPPICA*

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ABSTRACT

Mussaenda philippica known as the "Queen of the Philippines," is an ornamental evergreen shrub or small tree native to the Philippines, cultivated for its showy, petal-like sepals that come in colors like pink, white, and red. It prefers full sun, well-drained, slightly acidic soil, and consistent moisture. The true flowers are small and inconspicuous, while the surrounding enlarged sepals are the plant's main attraction. *M. philippica* can grow up to 15 feet tall, is propagated from stem cuttings, and requires regular watering and feeding with organic matter, with pruning after flowering to encourage new blooms. The cultivation of medicinal plants is the key to meet the raw material needs of the industry based on the medicinal plant products. Phytochemical investigation shows the presence of alkaloids, protein & amino acids, flavonoids, terpenoids, phenolics, glycosides, carbohydrate, saponins, steroids, tannins and fixed oil. Pharmacological activity leaves of anticonvulsant, antimicrobial, antioxidant and antiulcer properties then stems of hepatoprotective activities.

KEYWORDS: Rubiaceae, *Mussaenda philippica* and Queen of Philippines.

INTRODUCTION

At present natural substances are considered as a source of motivation for discovering a new drug. Plant derived compounds/ substances having a significant contribution towards human health and wellbeing. It is known from literatures that most of the traditional medicines obtained from natures specifically from plant materials. Plant materials are easily available in rural areas. Due to readily available of resources i.e. plants/ herbs the medicines in rural belt are cheaper than the alternative medicines like modern medicines.^[1]

Medicinal plants are the nature's gift to human beings to help them pursue a disease-free healthy life. The world's cultures have an extensive knowledge of herbal medicine. Plants are a valuable source of a wide range of secondary metabolites, which are used as pharmaceuticals, agrochemicals, flavours, fragrances, colours, bio pesticides and food additives.

The worldwide use of medicinal plants has gained additional impact due to its natural origin and high therapeutic implications. *Mussaenda philippica* 'Aurorae' belonging to family Rubiaceae is a shrub, having small tubelike flowers, oblong-lanceolate, dark green, glossy leaves. It is well distributed throughout India, South East Asia and Philippines.^[2]



Fig. 1: Leaves of *Mussaenda philippica*.

PLANT DESCRIPTION

Mussaenda philippica A Rich plant belong to genus *Mussaenda* and family Rubiaceae. Commonly it is known as "Queen of Philippines, Bangkok rose, Kahoy Dalaga". *Mussaenda philippica* is otherwise called as 'Vellaiyilai' in Tamil. This plant is mostly seen in the Philippines, India etc.^[7]

Botanical name	<i>Mussaenda philippica</i>
Family	Rubiaceae
Sub family	Ixoroideae
Kingdom	Plantae
Sub kingdom	Tracheobionta
Division	Angiosperms
Sub division	Spermatophyta
Order	Gentianales
Genus	Mussaenda
Species	<i>Mussaenda philippica</i> A.Rich
Phylum	Tracheophyta
Class	Magnoliopsida
Sub class	Asteridae
Common name	Kahoy Dalaga, Philippine mussaenda, Tropical Dogwood.
Synonym	Bangkok rose, Virgin tree, Queen of Philippines, White mussaenda, <i>Mussaenda grandiflora</i> Rolfe



Fig. 2: Flower of *Mussaenda philippica*.

VERNACULAR NAME

Tamil	Vellaiyilai
Tagalog	Kaholf-dalaga
Hindi	Bebina
Indonesian	Nusa indah putih
Japanese	Konrai
Konkani	Mithai pool
Malayalam	Vellila or Parathole
Palavan	Cherecheroi
Bengali	Magballi

PHARMACOLOGICAL ACTIVITY & PHYTO CONSTITUENTS

The phytoconstituents isolated from the sepals of *M. philippica* were identified as three iridoid glycosides such as 5-hydroxy davisiosides, 4-acetoxy-7-methoxy secologanin and 6-methoxy mussaenoside as well as two flavones, 5,7,4'-trihydroxy-3'-methoxy flavone and 5,7-dihydroxy-6, 3',4'-trimethoxy flavone.^[3,4]

The different parts of this plant is useful for various treatments such as bark is used as remedy for stomach ache, dysentery, leaves for lung and chest infections, full-grown sepals for jaundice.^[3,5]

The methanolic extracts of leaves of *M. philippica* along with ten medicinal plants of Bangladesh were screened for evaluating analgesic activity in mice. The peripheral analgesic activity of the samples were evaluated in mice using acetic acid induced writhing method and the result shows the plant extracts were able to reduce the writhing significantly ($P < 0.05$) at a dose of 400mg/kg body weight after oral administration. The methanol extracts of *M.philippica* inhibited acetic acid induced writhing effectively with percent inhibition of 76.1^[3,6]

MEDICINAL USES

1. Anti-inflammatory Uses

Leaves and roots are used as poultices, Swellings, Joint pain, Inflammatory skin conditions, Believed to reduce local inflammation and pain.

2. Treatment of Fever

Leaf decoction is traditionally consumed to Reduce fever, Relieve body aches associated with fever.

3. Antimicrobial Properties

Extracts of the leaves and roots have shown, Antibacterial activity, Antifungal effects, Minor wounds, Skin infections, Boils and sores.

4. Wound Healing

Crushed fresh leaves applied directly to Cuts, Ulcers, Insect bites helps with Faster healing, Prevention of infection.

5. Respiratory Relief

In folk medicine, leaf preparations are used for Cough, Mild asthma symptoms, Chest congestion.

6. Digestive Aid

Used in small doses to help with Stomach discomfort, Mild diarrhea, Indigestion.

7. Antioxidant Activity (Scientific Findings)

Modern studies have found that *Mussaenda philippica* contains Flavonoids, Phenolic compounds And these contribute to Antioxidant effects, Possible protection against cellular damage.

RESULTS AND DISCUSSION

S. No	Part of the Plant	Extraction used in solvent	Pharmacological Activity	Reference
1	Leaves	Hydroalcoholic Solvent	Anticonvulsant Activity	DM. Kar <i>et al.</i> , 2014
2	Leaves	-----	Taxonomic and Pharmacognostic Evaluation	RA. Umoh <i>et al.</i> , 2022
3	Leaves	Methanol	Antimicrobial and Antioxidant Activity	MR. Efendi <i>et al.</i> , 2025
4	Flowers	-----	Micro morphological and Pharmacognostic Studies	PS. Tyagi <i>et al.</i> , 2021
5	Leaves	Methanol and Aqueous	Antiulcer properties	R. Jena <i>et al.</i> , 2019
6	Stems	Methanol	Hepatoprotective Activity	SR. Dugasani <i>et al.</i> , 2014

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