

Paederia Foetida Linn.: A Potential Climbing Medicinal Herb in Central India



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Abstract

The plant *Paederia foetida* Linn is herbaceous climber with wide range of potential to treat various disorders such as arthritis, coughs, asthma, itching, wounds, as pain killer etc. Present study is based on Morphological as well as pharmaceutical utilization of the plant *Paederia foetida* Linn. *Paederia foetida* Linn is a member of family Rubiaceae. It includes foul smelling in their different plant parts. Asexual regeneration of the plant was also noticed. The plant is producing small beautiful flowers in clusters. These are of pink white in colour. Morphological as well as medicinal potentials are discussed.

Keywords: *Paederia foetida* Linn; Medicinal Plant and Climber Herb

Introduction

Herbal plants performing their significant role in primary health care in society. The plants showing wide range of utilization so urgently needed to documentation as well as for characterization, knowledge circulation among the society. Biological diversity includes a combination of a variety of living bio species over the world in all possible natural habitats. Plants are also a major segment to construct the biological diversity in specified ecological areas. Plants registered for their multifold valuation for living bio resources as it is participating role in successful regulation of the ecosystem in particular areas. Plants are of great significance as their utilization in food, fodder, fuel etc sources among the society. Plants are producing rich amount of seeds in their life phases to ensure their presence in nature for long period. Such process is supported by varied methods of seeds dispersal.

It is leading by different biotic and abiotic agents. Plants are also variable in their seed germination capability showing differences between seed to seed as well as plant variety to variety. All the plants are not equally potential to multiply like their parental ones. These plants are well adapted for further propagation by different mode marked as vegetative propagation. Among large plant population few of the species are efficiently reproducing using their seeds as well as by the various vegetative plant parts including the modified plant parts such as bulb, tuber, rhizome, and corm etc. Each one plant in nature includes a certain chemical compounds and are utilized for treating

various disorders in traditional health care system. The groups of the plants utilized for such purpose are referred as Medicinal and aromatic plants. These plants are showing rich variation in their presence, morphology and chemical compounds etc. Due to rich potential to treat particular disorders among human beings and for no or less side effect the trends towards their utilization is increasing day by day. There are several natural as well as manmade reasons which greatly responsible for loss of these plants from their natural habitats. Such as Destruction of natural habitat, over exploitation, forest fires etc are leading factors which support directly to the loss of these plants in certain ecological areas. Because of rich potential of this plant against different disorders utilizing by the human beings following by different preparations. For particular disorder Medicinal plants should be selected in proper way and also should be followed a suitable doses for better and effective result.

The plant *Paederia foetida* Linn belonging to the family Rubiaceae is remarkable for its wide range of applicability in society. It includes bitter taste as well as foul smelling. Proper knowledge on Medicinal and aromatic plants followed by maintained exploitation support their continuous appearance in natural habitat. Due to multifold utility the useful plants like *Paederia foetida* Linn require more attention towards their proper propagation, management and for chemical characterization. The paper deals the study of Morphology and utilization of a climbing herb *Paederia foetida* Linn [1]. Recorded

on anti-diarrhoeal activity of the ethanol extract of *Paederia foetida* Linn [2]. Analyzed chemical constituents from *Paederia foetida*. *Paederia foetida* Linn. As a potential medicinal plant: A Review was made by [3,4] investigated on anti-inflammatory effects of *Paederia foetida* [5] noticed a preliminary study on the hepatoprotective activity of methanol extract of *Paederia foetida* leaf [6] recorded herbal remedies among the Khasi traditional healers and village folks in Meghalaya [7] made pharmacognostical and photochemical study on the leaves of *Paederia foetida*. Antioxidant activity of and Phenolic content of *Paederia foetida* and *Syzygium aqieum* was studied by [8].

Evaluation of Anthelmintic activity of leaves of *Paederia Foetida* was done by [9,10] studied pharmacognostical Profile of *Paederia Foetida* Linn. Leaves. Iridoid glycosides and other constituents of *Paederia foetida* was analyzed by [11]. *Paederia foetida* Linn: Phytochemistry, pharmacological and traditional uses assessed by [12,13] focused on ethnobotany, nutritional composition and DPPH radical scavenging of leafy vegetables of wild *Paederia foetida* and *Erechtites hieracifolia*. Anti-inflammatory activity of an indigenous plant *Paederia foetida* was made by [14]. Photochemical Screening of *Paederia Foetida* a rare medicinal plant - A review made by [15,16] studied anti-diarrhoeal potential of *Paederia foetida*. In vitro antibacterial activity of the ethanol extract of *Paederia foetida* L. (Rubiaceae) leaves studied by [17,18] found steam volatile constituents of the aerial parts of *Paederia foetida* L. Flavour Fragr Journal 9: 25-28. Pharmacognostical and Photochemical study on the leaves of *Paederia foetida* Linn recorded by [19].

Material and Methods

For assessment of morphological variation Proper observations made on plant *Paederia foetida* Linn. Different plant parts Images were taken and are arranged in proper manner followed by different plant parts. Mature stem cuttings were utilized for their asexual regeneration. The study supported by well soil preparation, water supply. These are helpful for regenerating new individuals of the plant like their mother plants. Water logging and stress both the condition were managed. Medicinal utilization of the current studied medicinal plant *Paederia foetida* Linn were recorded as per available literatures.

Result and Discussions

The plant is belonging to Rubiaceae family. It is herbaceous climber in nature during of initial stage and after of maturation

basal region of the plant becomes hard and woody in nature. Upper portion of the plant is almost herbaceous. In the presence of proper support it is climbing by quailing their stem on any substratum either on plants or any non living support. In the absence of any substratum the plant frequently growing by creeping land. Root system is tap root with multi branching pattern. Stem cylindrical, woody at base and are herbaceous in above portion. Quailing tendency found in stem, these are less branched. Leaves are green, petiolate, glabrous and simple in nature with unicosted reticulate venation. The plant producing small, pink-white coloured flowers in clusters. Flowers are bell shaped, 5-15 mm X 2-6 mm. The flower includes 5 stamens inserted in the middle of flower tube by including 2-2.5 mm long anthers. Ovary inferior, 5-15 mm style present. The stigma joined on style and are around 2 mm long. Stigma branches are thread-like and are irregularly twisted. Fruit is a drupe. Seeds are small in size. It is well adapted to grow in almost all type of soil with moderate water supply. The plant includes a strong foul smelling in their body parts with rich potential to treat many disorders (Appendix 1).

Phyto chemicals

Paederia foetida includes paederolone, paederone, β -sitosterol, paederoside, glucosides, iridoid, asperuloside and various alkaloids etc. The plant also contains friedelin, campesterol, ursolic acid, hentriacontane, hentriacontanol, ceryl alcohol, palmitic acid and methyl mercaptan, ellagic acids, terpenoids and essential oil etc.

Medicinal Uses

Anthelmintic, Anti-inflammatory, Antibacterial propriety, Antioxidant, Anti Ulcer, Hepatoprotective, propriety, Constipation, Stomach problem, Dysentery etc.

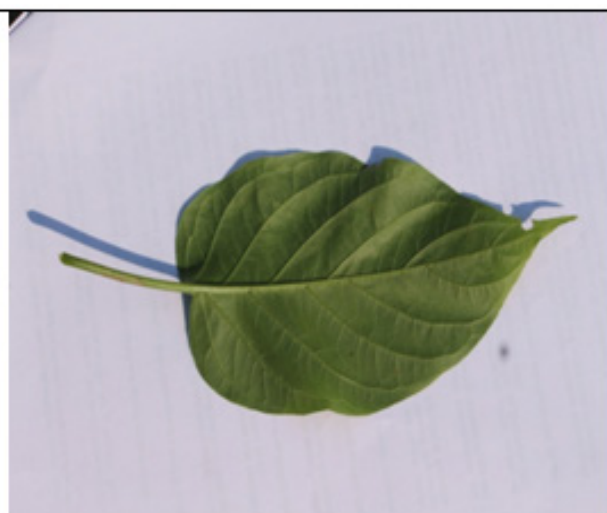
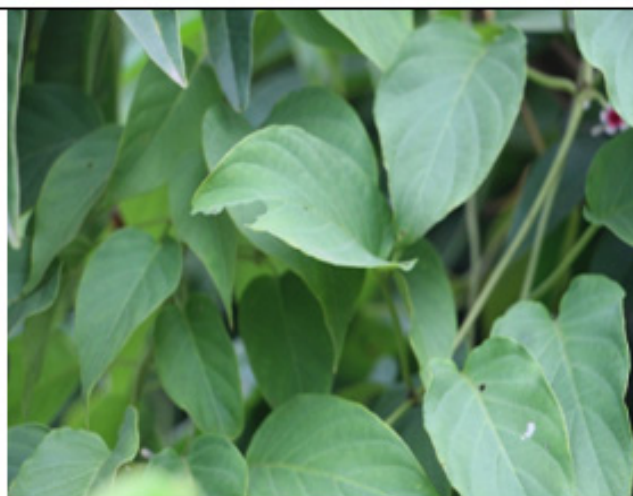
Conclusion

On the basis of detailed information from literatures focusing that the plant *Paederia foetida* showing wide ranges of its potential to treat many disorders/ ethno medicinal treatments. The plant including varied active constituents found to be useful in several traditional medicinal uses among society. It is concluded that the plant showing rich potential for its applicability towards traditional health care. Based on the above applicability of the plant *Paederia foetida*. It should be utilized in sustainable manner following control on overexploitation and other activities which greatly responsible for loss of their existence from nature.



Paederia foetida Linn. : Mature Plant.





Paederia foetida Linn. : Leaf.



Paederia foetida Linn. : Flowering Stage.

Appendix 1: *Paederia foetida* Linn. Images of various parts.

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