

Habitat and distribution of *Phyllanthus amarus* in Patna district of Bihar, India

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Abstract: *Phyllanthus amarus* is worldwide distributed plant and it is found in tropical and subtropical region of planet. The plant is non woody in habit and approx 50 cm in height. *Phyllanthus amarus* found as a wild plant and also found as a weed in cultivated land, road side, railway track side, in a garden etc. The climate of Patna district is suitable for the growing of *Phyllanthus amarus*. In this study, observed the *Phyllanthus amarus* plant found in Patna district as a weed in cultivated land, National Highway side, Railway track side and other rural area of Patna district. *Phyllanthus amarus* plant have many medicinal properties so it is very important plant for this study.

Key Words: *Phyllanthus amarus*, Euphorbiaceae, habitat, distribution, climate.

1. Introduction

Phyllanthus amarus is widely distributed in all tropical and subtropical region of planet. *Phyllanthus amarus* is a wild plant of the family Euphorbiaceae (Phyllanthaceae). *Phyllanthus amarus* plant has been widely distributed as a weed in cultivated and waste land in India. Distribution of plant in worldwide specially in Philippines, Cuba, Nigeria and other country. The map shows countries where the species has been found. It not grows in Australia plants, grows in agriculture land, waste land coastal area, river banks in rainy season. *Phyllanthus amarus* is an herb and seen in moist deciduous forest plantations and in plains¹. *Phyllanthus* genus consists of approx 1000 species and spread worldwide^{2/3}. In India *Phyllanthus amarus* is found in as a weed in cultivated and waste lands⁴. *Phyllanthus amarus* plant may be indigenous to the tropical Americas⁵ and the Philippines or India^{5/6}.

2. Materials and Methods

Study area: In this study Patna district is selected for the habitat of *Phyllanthus amarus*. Patna is

located at southern bank of Ganga river and its confluence of other three rivers in its vicinity- Sone, Gandak and Punpun in Middle Ganga Plain⁷. *Phyllanthus amarus* is a common pantropical weed that grows well in moist, shady and sunny places⁵. The climate of Patna district is of moderate type characterised by quite hot in summers to mild cold in winters. Rainfall is moderate and erratic during Kharif season. Patna is suitable for well growing of *Phyllanthus amarus*.

In Patna, *Phyllanthus amarus* found in as a weed in cultivated land, road side, Railway track side, Diyara land. The plant samples were collected and observed by extensive field trips in different location of Patna. All the observations and field data were noted out. With the help of important reference, Indian Medicinal Plants by Kiritkar and Basu⁸, the identification was conformed. Voucher specimen of each plant sample was dry-mounted, photo graphed and preserved for future reference. Habitat and distribution of the plant samples were observed.



Fig: Worldwide distribution of *Phyllanthus amarus*.



Fig: Distribution of *Phyllanthus amarus* in India.

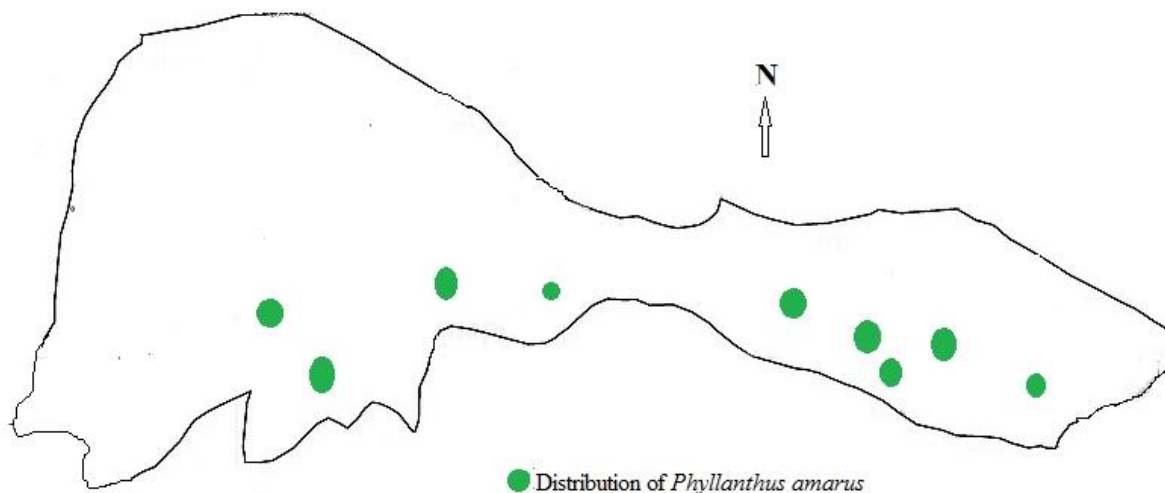


Fig: Distribution of *Phyllanthus amarus* in Patna district.

3. Result and Discussion

In this study, Habitat of *Phyllanthus amarus* is observed. *Phyllanthus amarus* grows as an annual herb to 50 cm in height. The plant height lies between approx 30 to 60 cm. The genus *Phyllanthus* L is first described by the Linnaeus in 1753 and distributed in moist humid tropics. In the India *Phyllanthus amarus* known as 'Bhumyamalika'. *Phyllanthus amarus* is a wild plant of plant of the family Euphorbiaceae (Phyllanthaceae). It is a non-woody habit, mono or bipinnate leaves which may be simple and always without stipules, zygomorphic flowers, which is small may subregular arranged usually in racemose, free sepals and petals. *Phyllanthus* means "Leaf and flower" and named so because of its appearance

flower, fruit and leaf appears fused. It is a worldwide distributed plant of tropical and subtropical region of planet. In India also most of places distributed *Phyllanthus amarus* plant. Distribution of *Phyllanthus amarus* found in in India, South Indian states, Maharashtra, Madhyapradesh, Uttarpradesh, Bihar, Jharkhand, North East States etc. in the district Patna *Phyllanthus amarus* plant found in Tal area of Patna district, Diyara land, Ganga and Punpun river side. *Phyllanthus amarus* found as a weed in cultivated land. Road side i.e. NH 31 also *Phyllanthus amarus* is found. Railway track side i.e. Howrah-Delhi main line also *Phyllanthus amarus* observed. *Phyllanthus amarus* also observed as a weed in garden.



Fig: Habitat of *Phyllanthus amarus* as a wild plant.



Fig:Habitat of *Phyllanthus amarus* in a garden as a weed.

4. Conclusion

Phyllanthus amarus is a plant belonging to the family Euphorbiaceae (Phyllanthaceae) worldwide distributed as a wild plant. It grows in tropical and subtropical areas of the world. Patna district is also part of this type of climate and in Patna *Phyllanthus amarus* is distributed as a wild plant on the roadside, railway track side, as a weed in a cultivated land. Also many research studies suggested that *Phyllanthus amarus* has many medicinal properties. So, *Phyllanthus amarus* is a very useful plant in the field of Ayurveda. Many scientists suggested that medicinal properties of *Phyllanthus amarus* and that plant may play an important role in the pharmaceutical industry. This study is also helpful for the pharmaceutical industry.

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