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REVIEW ON LANTANA CAMARA

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ABSTRACT

Lantana camara is a invasive species, has been enlarging and now it has become habitual in many regions of the world, including India. As it poses major warning to eco-system, it has been in the focus of control attempts. For purpose of this research, various features of *Lantana Camara* are discussed and manyways to combat its invasion in India have been studied. Research reveals that species have become risk and expanding its range. Present result also such as that more than 80% of the studies focus on its effect, utilization,toxicity and its therapeutic uses only. It thus, comes out clear that the research concentrating on the path and development of *Lantana Camara* besides knowing its ecology, is the need. Information of this kind, as presented in this research, is extremely important to be needed to plane-out a befitting response to protect theeco-system at a equal scale. Else, it may be impossible to make any progress towards meaningful control with small, separate periodical attempts.

KEYWORDS: *Lantana Camara*, ethnopharmacology, invasive species, phytochemistry, pharmacology.

INTRODUCTION

Lantana camara (common *lantana*) a flowering plant species in verbena family (verbenaceae), American tropics is the native of *Lantana camara*.[1] It has spread from its native Central and South America to around 50 countries, it is an invasive species.[2] *L.Camara* exhibit high morphological variation due to extensive breeding. The biological variety of *L.Camara* population are more. This species has diploid (n= 22), triploid (n= 33), tetraploid(n=44) and pentaploid(n= 55) varieties. Unlike ploidy extent are biologically important in on interfering capability on the species *L.camara* in the domestic range on

tropical America develop while the small group as 1 diameter. *L.camara* also breed asexually. Vegetative breed happens by stratified horizontal stems and give rise to root system.

PLANT TAXONOMY

Kingdom :Planate

Division :Magnoliophyta

Class :Magnoliopsida

Order :Lamiales

Family :Verbenaceae

Genus :*Lantana*

Species :*Lantana camara Lin*

BINOMIAL NOMENCLATURE

Lantana camara L.

SYNONYMS

Lantana aculeate[3] *Camara vulgaris*[4]

GEOGRAPHIC DISTRIBUTION

In India, *L. camara* are probably establish before 19th century. Currently *L. camara* is distributed throughout India. *L. camara* is known by different names, in various different languages in India viz,

- ✓ Arippu and Unnichedi [Tamil]
- ✓ Lantana [English]
- ✓ Raimuniya [Hindi]
- ✓ Chaturangi and Vanacehdi [Sanskrit]
- ✓ Konginipoo and Nattachedi [Malayalam]
- ✓ Thirei, Samballei and Nongballei [Manipuri]
- ✓ Tantani and Ghaneri [Marathi]
- ✓ Pulikampa [Telugu]
- ✓ Kakke and Natahu [Kanada]

PLANT ILLUSTRATION

- *Lantana camara* is a continous , straight reclining or rising , bush which typically raiseto around 2 metres (6+$^{1}\!/_{2}$ feet) high and form compact thickest in a variety of environments.
- Under the precise environment , it can crawl up into trees and can grow to 6 m(20 feet) tall.[5,6]
- The leaves are mainly ovate, opposite, and simple and have a strong fragrance when pulverized.[7]
- *L. camara* has tiny tubiform-shaped flowers, which each have four petals and are organized in group in terminal areas stems.
- In frost-free climates the plant can blossom all year round, exclusively when the soil is humid.

Fig 1: *lantana camara.*

Fig 2 : pink buds of *lantana camara*

LEAVES OF *LANTANA CAMARA*

Leaves are ovoid or ovate oblong, acute or sub acute, crenate serrate, rugose above, scabrid on both sides. The leaves are 3-8 cm long by 3-6 cm broad and green in colour. Leaves and stem are concealed with coarse hairs.

FLOWERS AND THEIR TYPES

Flowers are surrounded by involucre of bracts, long from 5 to 7 mm. floral pedicel is 6 to 12mm long, corolla tube curved along 10 to 12 mm, with ascending hairs inside.

And their types are

Pink-Bud

a. It is pink in colour[8]
b. Middle ring: It has yellow opening with pale yellow petals.
c. Outer ring: It is orange opening with pale or dark pink petals.

White – Bud

a. It is cream coloured
b. Middle ring: It has yellow opening with light yellow petals.
c. Outer ring: It has orange or yellow opening with lilac petals.Pink-Edged Red – Bud:
a. It is pink to reddish pink in colour.
b. Middle ring: It has orange opening with light yellow to orange petals.
c. Outer ring: It has orange opening and having two pink to red petals.

Orange – Bud

a. It is orange colour.
b. Middle ring: It has yellow to orange opening, yellow petals.
c. Outer ring: It has orange opening with orange petals.

Red – Bud

a. It is blood red in colour.
b. Middle ring: It has yellow opening with yellow petal.
c. Outer ring: It has red throat having red petals.

FRUITS

Fruit is a berry-like drupe which turns green to dark purple when become mature. green unriped melons cannot be eaten by humans and animals . Due to their thick patches of hard spikes on their rind, taking them can result in severe damage to the digestive tract. And their seeds can be subspherical, and 3mm in diameter.

PHYTOCHEMICAL CONSTITUENTS

Phytochemical composition of the *L. camara* has been significantly calculated in last few decades. Different parts of *L. camara* are expressed to carry as major phytochemical groups. They are given below the following,[9,10]

- Essential oils

- Phenolic compounds
- Flavonoids
- Carbohydrates
- Proteins
- Alkaloids
- Glycosides
- Iridoid glycosides
- Phenyl ethanoid
- Oligosaccharides
- Quinine
- Saponins
- Steroids
- Triterpens and Tannis.

ETHNOPHARMACOLOGY

L.Camara is an essential medicinal plant with considerable medicinal uses in conventional medication system. It is been used as a remedy many health issues in distinct parts of the World. Leaves are used in healing of cuts, rheumatisms, ulcers, catarrhal infection, tetanus, rheumatism, malaria, cancer, chicken pox, asthma, ulcer, swelling, eczema, tumour, high blood pressure, bilious fever, ataxy of abdominal viscera, sores, measles, fevers, cold and high blood pressure. In Ghana, infusion of the whole plant is used to cure bronchitis and the powdered root in milk was offered to children for stomach-ache and as a vermifuge. *Lantana* oil is used in the treatment of skin, itches, as an antiseptic for cuts. In leprosy and scabies decoctions were applied outwardly.[11]

The name *Lantana* is derived from the Latin name of the wayfaring tree Viburnum *lantana*, the flowers of which closely appear as *Lantana*. *Camara* is gathered from Greek word, meaning 'arched', 'chambered', or 'vaulted'.[12]

INVASIVE SPECIES

There are many causes why *L. camara* has been so fortunate as an invasive species; however, the primary factors which have endorsed it to create itself are.

1. Wide dispersal range have made desirable by birds and other animals that it eat its drupes.

2. Less tended to be eaten by animals due to toxicity
3. Tolerance of a wide range of ecological situations
4. Developing in logging and habitat moderation, which has been favorable to *L. camara* as it suggests disturbed habitats
5. Making of toxic chemicals which constrain rivaling plant species.
6. Extremely massive seed offerings (12,000 seeds from every plants).

USAGES

Lantana camara shoots have been used in the setting-up of furniture, such as chairs and table. Any how, the main application have been historically in medicinal and ornamental.

THERAPEUTIC VALUES

Studies handled in India have been found that *Lantana* leaves display differentproperties.

- Antimicrobial
- Fungicidal
- Insecticidal[13,14]

L. camara has also been used in traditional herbal medicines for treating a mixture of illness, including.

- Cancer
- Ulcer
- Measles
- Chicken pox
- Leprosy
- Skin itches
- Asthma

L. camara extract has been displayed to decrease gastric ulcer growth in rats.

MEDICINAL PROPERTIES OF LANTANA CAMARA

- Antibacterial Activity
- Antifungal Activity
- Antiulcerogenic activity
- Hemolytic Activity
- Antihyperglycemic Activity

- Mosquito Controlling Activity
- Antimotility Activity
- Wound Healing Activity
- Anti-filarial Activity
- Anti-inflammatory Activity
- Antifertility Activity
- Antimutagenic Activity
- Anti-cancer Activity
- Antioxidant Activity

CONCLUSION

Humans depend on the nature for their day-to-day needs as the basic sources fortheir food, clothing, shelter, tastes, medicinal agents, and others etc…There is a bright future for the medicinal plants as they cover more parts of the world, and most of the varieties are not found fortheir corresponding uses. *L.camara* has wound healing, anti-bacterial, anti-fungal, mosquito repellant, anti-cancer, anti-ulcer, haemolytic activities and also many other uses. So it also represents hopeful medicinal plant with wide range of pharmacological activity which could be used in many medicinal applications due to its effectivity and safety.

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