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Hibiscus rosa-sinensis L. (Malvaceae): A Multipurpose Ornamental Plant

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ABSTRACT

Hibiscus rosasinensis is a perennial ornamental woody plant, belong to Malvaceae family available throughout India. Various parts of this plant like roots, leaves and flowers have been known to possess medicinal properties like anti inflammatory, antifungal, oral contraceptive, laxative, aphrodisiac, menorrhagic etc. The present paper is an attempt to provide a detailed botanical description, classification, phytochemical study of the plant.

Keywords: Antifungal, Anti-inflammetry, Ayurveda.

INTRODUCTION

Plants are one of the most important sources of medicines. The medicinal plants are extensively utilized throughout the world in traditional system of medicines "Ayurveda" [1]. Medicinal plant is the most exclusive source of life saving drugs for majority of the world's population. They continue to be an important therapeutic aid for alleviating the ailments of human kinds. The search for defence mechanism, longevity and remedies to relieve pain and discomfort drove early man to explore these immediate natural surroundings.

India is rich source of medicinal plants and is called "Botanical Garden of the World" with enormous wealth of biodiversity. There are almost 45,000 plant species recorded in India so far [2] of which 7,500 species have been used for medicinal purposes [3]. *Hibiscus rosasinensis* is a perennial ornamental plant available throughout India. It is

belong to Malvaceae family and grows as an evergreen herbaceous plant. *Hibiscus rosa-sinensis*, is the national flower of Malaysia. The herb *Hibiscus rosa-sinensis* is native to China. The genus *Hibiscus* comprises about 275 species in the tropics and subtropics. With attractive and colourful flowers, plants of *Hibiscus* are used in traditional medicine. Several articles and ancient literature have shown that the flowers of this plant possess antifertility activity, like antiimplantation, abortifacient, in rodents [4]. Leaves are used as emollient, anodyne, and laxative in Ayurveda. [5,6]. The aqueous-ethanolic extract of aerial parts of *H. rosasinensis* were reported for its use in constipation and diarrhea. In traditional medicine, the leaves of the plant are used in fatigue and skin disease. Fresh root juice of the plant is given for gonorrhoea and powder root for menorrhagia [7]. Flowers of the plant are used in epilepsy, leprosy, bronchial catarrh and diabetes [8]. *Hibiscus, rosa-*

sinensis, young leaves are sometimes used as a spinach substitute. Flowers of *Hibiscus rosa-sinensis* can also be made into a kind of pickle or used as a purple dye for colouring foods such as preserved fruit and cooked vegetables. Root is edible but very fibrous. *H. rosa-sinensis* flower preparations are used for hair care. The flowers themselves are edible and are used in salads in the Pacific Islands. The flowers are used to shine shoes in parts of India [9].

CLASSIFICATION

Kingdom = Plantae
Subkingdom = Tracheobionta
Super division = Spermatophyta
Division = Magnoliophyta
Class = Magnoliopsida
Order = Malvales
Family = Malvaceae
Genus = Hibiscus
Species = *H. rosa-sinensis*

VERNACULAR NAMES

Hindi = Jasum, Gulhar

English = Chinese hibiscus, Shoe flower, China rose
Sanskrit = Japa
Rajasthani = Gudhal
Malayalam = Bunga Raya
Tamil = Sembaruthi

BOTANICAL DESCRIPTION

Hibiscus rosa-sinensis is an evergreen woody, glabrous, showy shrub 5-8 feet in height. Leaves are bright green, short petiolated, ovate or lanceolate, more or less acuminate; irregularly and coarsely serrated towards the top, entire near base, glabrous on both sides, a few minute stellate hairs on the nerves beneath stipules, lanceolate subulate and glabrous. Pedicels are axillary, solitary, and longer than the leaves and joined above the middle [10]. Flowers are large, solitary, axillary, bisexual, bell shaped with 5 petals, with red pistil and stamens in orange colour projecting from centre. The flowers are generally red in the original varieties but generally lack any scent. Also many colors are available in a single, double or multi-shades including white, yellow, orange, red, pink, purple, etc.

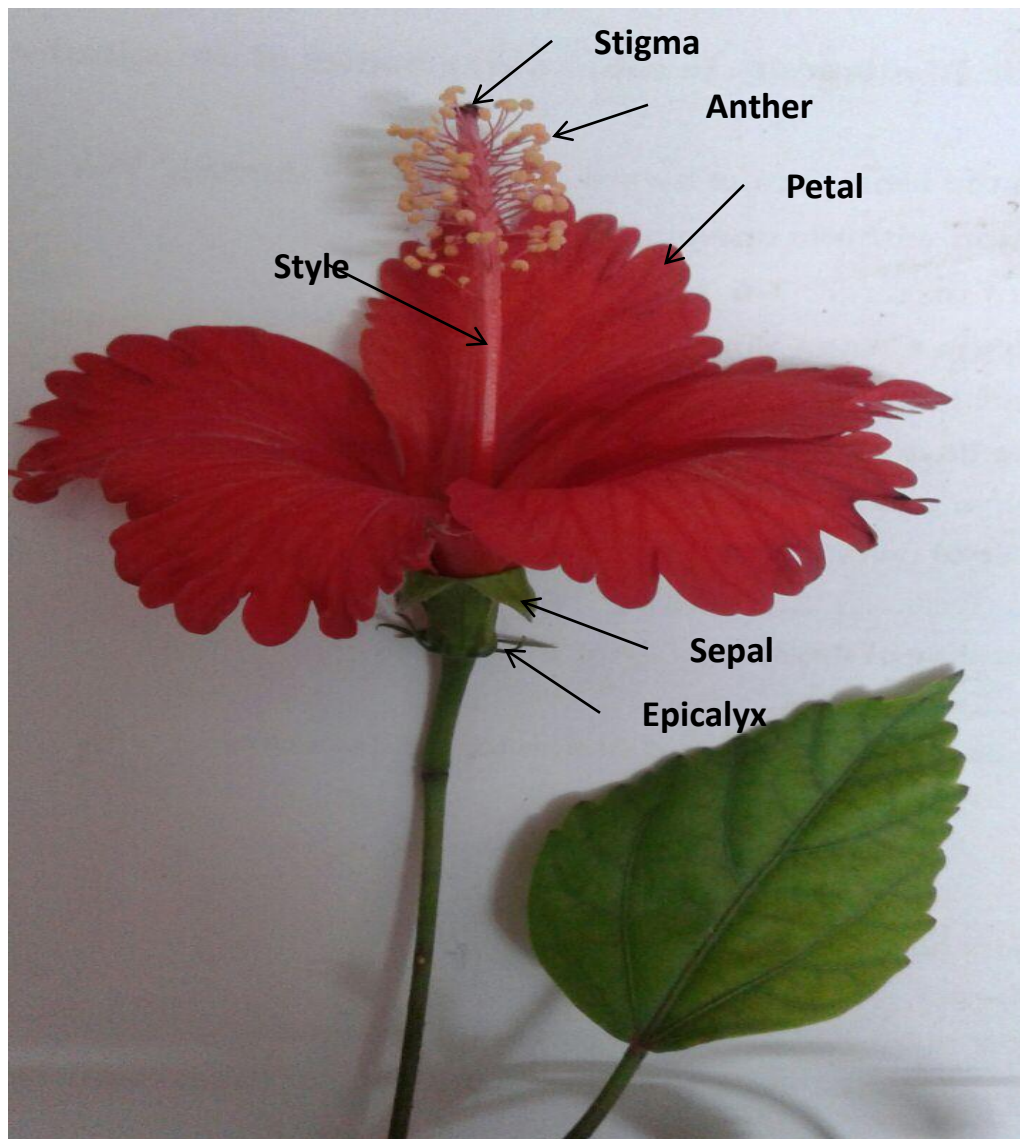


Fig: flower with leaf of *hibiscus rosa-cinensis*

PHYTOCHEMICAL CONSTITUTES

Different extract of *Hibiscus rosa-sinensis* plant revealed the presence of alkaloids, glycosides, fatty materials, reducing sugars, resin, sterols and the lack of tannins and Saponins. Isolation of β -sitosterol, taraxeryl acetate and four uncharacterized compounds which included an alkaloid and three sterols has been reported in the leaves. The leaves of *Hibiscus rosa-sinensis* were also investigated for

their fatty alcohol, fatty acids and hydrocarbon content. Two cyclic acids viz., malvalic and sterculic are also identified [11]. Some of the chemical constituents isolated from this plant are cyanidin, quercetin, hentriacontane, calcium oxalate, thiamine, riboflavin, niacin and ascorbic acid. Flavonoids are also present [12].

CONCLUSION

Hibiscus rosa-sinensis (Malvaceae) is a perennial ornamental shrub available throughout India. The medicinal plant *Hibiscus rosa sinensis* is having many pharmacological activity, therapeutic activity. Various parts of this plant like flowers, leaves and roots have been known to possess medicinal

properties like oral contraceptive, laxative, aphrodisiac, menorrhagic etc. Hence most work could be done on the above plant to reveal the unknown mysteries which would help the need of the present pharmaceutical world. Hope this review will serve the purpose of aiding in future Research work on this plant.

REFERENCES

- [1]. **Cordell** GA. (2000). Biodiversity and Drug discovery: A symbiotic relationship. *Phytochemistry*. 56, 463-480.
- [2]. **Moef**. Biodiversity country studies, strategies & action plan. Ministry of Environment & Forest, Government of India. 48, 1994.
- [3]. **Kala** CP. Current status of medicinal plants used by traditional vaidyas in Uttaranchal State of India. *Ethnobot Res Appl.*, 3, 2005, 267-278.
- [4]. **Batta** S.K, Santhakumari G. The anti-infertility effect of *Ocimum sanctum* and *Hibiscus rosasinensis*. *Indian J Med Res*. 59, 1970, 777– 81.
- [5]. **Chatterjee** A, Prakash SC. Encyclopedia of Indian Medicinal Plants. PID, Council of Scientific and industrial Research, New Delhi 2001.
- [6]. **Anonymous**. The Useful Plants of India. PID, Council of Scientific and industrial Research, New Delhi. 1996
- [7]. **The Wealth** of India. Raw materials, New Delhi, CSIR 5, 1959, 91.
- [8]. **Indian** medicinal plants. A compendium of 500 species, Orient Longman 2, 1995, 149.
- [9]. **Essiett**, U. A. and Iwok, E.S.. Floral and Leaf Anatomy of Hibiscus Species. *American Journal of Medical and Biological Research*. 2(5), 2014, 101-117.
- [10]. **Kiritikar** KR, Basu BD. Indian Medicinal Plant. Vol. I, Darshan Singh Mahendra Pal Singh, 23-A New Cannanught Place, Dehradun 2004.
- [11]. **Jadhav** VM, Thorat RM, Kadam VJ, Sathe NS. *Hibiscus rosa sinensis* Linn – “Rudrapuspa”: A Review. *Journal of Pharmacy Research*. 2(7), 2009, 1168-1173.
- [12]. **Nair** R, Kalariya T, Chanda S Antibacterial Activity of Some Selected Indian Medicinal Flora. *Turk. J. Biol.* 29, 2005, 41-47.