An overview on *Saussurea obvallata*: A spirituo-scientific plant of India

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**Abstract**

*Saussurea obvallata* (S. *Obvallata*) is one of the beneficial plant which has been used in various countries as traditional medicines. Some of the species have been identified as endangered ones. Realizing the importance of one of S. *Obvallata* in ornamental, spiritual and traditional purposes, a review studies was undertaken to understand the scientific investigations carried out on the plant and spiritual practices in India have been focused as a part of germplasm conservation in India.

**Keywords**: S. *obvallata*, Brahma kamal, medicinal, spiritual plant

**Introduction**

*Saussurea obvallata* is a plant belonging to Asteraceae family, which is native to Himalayas of India, Nepal, Bhutan etc. Commonly known as ‘Brahma kamal’ in Hindi and ‘Brahma kamala’ in Kannada as it is named after the creator of the Universe-Lord Brahma and it resembles that of lotus on which Lord Brahma sits, according to Indian ancient literature. Also it is called by names such as ‘Queen of night’, Lady of night and ‘night blooming cereus’ as the flower blooms only during night time and it takes nearly two hours to bloom completely and measures around eight inches. Also, it is regarded as ‘King of Himalayan Flowers’, because of its abundance in that region. *S. obvallata* plant bears attractive white flowers as a result of plant pollination through insects. The purple heads of flower are concealed from sight in coatings of yellow-green thin bracts and it blooms in the mid-monsoon along the hills side grasses and rocks. S. obvallata is also regarded as ‘State flower of Uttarakhand’ and is very often offered to hill temples such as Badrinath and Kedarnath1,2,9,31.

**Kingdom**: Plantae

**Phylum**: Tracheophyta

**Class**: Magnoliopsida

**Family**: Asteraceae

**Genus**: Saussurea

**Species**: S. *obvallata*

The genus ‘Saussurea’ is named after an alpine scientist, Horace Benedict de Saussure, while the specific appellation, *obvallata* is consequential of the word ‘obvallatus’ meaning “surrounded by wall”. There are nearly four hundred and ninety species in the genus *Saussurea* and S. *obvallata* has been well known for its various medicinal and religious practices1,9,12.

*S. obvallata* thrives widely amidst of Indian Himalayan regions and attracts with its special features such as tussocks (cushion forms) acaulescence, involucral bracts, stunted stems, requiring low temperature to bloom etc., making the plant and especially the flower the most beautiful.

One of the mythological stories reveals that the *S. obvallata* is regarded as ‘life giving flower’ as once Lord Shiva when beheaded his own son Lord Ganesha, Lord brahma created this plant using water from the petals of the flower to revive Lord Ganesha.

The studies have also revealed that the extract of *S. obvallata* flower can reduce liverinflammation by controlling the free radicals that damage liver, can act as antipyretic, possess antimicrobial action, reduces cold and cough, boosts the nervous system, heals the wound etc.

It is also believed the flower with its bright colour attracts people around along with its unique odour and creates a positive vibration around and hence some people believe that flowers of *S. obvallata* brings prosperity in the place where it blooms.

The leaves possess antimicrobial activity and flowers have
antioxidant action, whole plant has radioprotective and antihypoxic and bract contains radioprotective activity.

Also the studies have indicated that S. obvallata extract consists of various constituents such as Alpha-terpineol, Androstan-17-one, 3-ethyl-3-hydroxy, 5 alpha, Bupleurone, 1-Docosanol, Doconexent, Dehydrocostus lactone, Dibutylsbacate, Eltanoke, Gamma-curcumene Gondoic acid, Henicosanoic acid, Linalyl acetate, Litsomentol, Linoleic acid, Methyl palmitate, Methyl oleate, Methyl asterate, Palmitic acid, Pentacosanoic acid, Piperine, and Stearic acid.

The investigations have revealed that the inflorescence, leaves and stem consist of maximum amount of protein (26.25%), iron (0.042%) and crude fibres (20.00%) respectively. Also some of the aminoacids such as alanine, aspartic acid, alpha alanine, beta alanine, glycine, iso leucine, histidine, lysine, methionine, serine, phenylalanine, threonine and tryptophan have been identified in the species 5,13.

Because of its manifold uses, the S. obvallata has been recognized as endangered species and fore most preference has been provided for the species by CAMP (Conservation Assessment Management Plan) 6,7.

Methods

The literature explorations were conducted on S. obvallata using various scientific search engines such as Google scholar. Science direct, Web of science, PubMed and published literatures.

Conclusion

The current literature survey studies focused on understanding the medicinal and religious importance of S. obvallata. From the earlier investigations carried out it is clear that the species possess various medicinal properties and upon which advanced research can be done, however our studies conclude that S. obvallata plant is very useful medicinal plant which could be cultivated on small areas as a micro initiative towards germplasm conservation and religious practices of worshipping the plant and its products in India shall be very beneficial method to preserve and conserve them for future so that research findings can be carried out to screen the important metabolites that can be used for therapies and thus the plant can be regarded as spiritual-scientific plant of India.

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