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A SURVEY ON FLORISTIC STUDY AND CUSTOMARY APPLICATIONS OF THE GENUS *BLUMEA* (ASTERACEAE) IN THE DISTRICT OF BANSWARA, RAJASTHAN, INDIA

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ABSTRACT

The current work presents a survey of the genus *Blumea*, which is a member of the Asteraceae family and is highly valued by tribal peoples for its medicinal properties. During the survey, five plant species from the genus *Blumea* were identified in various seasons. This article describes how natives of district Banswara use plant components like stems, leaves, roots, bark, and fruit to treat a variety of illnesses, including bacterial infections, fevers, menstruation issues, and skin conditions. Information about their distribution, habitat, and uses has been collected from the inhabitants of the area.
***Keywords*:** Asteraceae, Medicinal uses, *Blumea.*

Introduction

The genus *Blumea* mostly extended throughout the subcontinent of India, as well as tropical and subtropical regions in South East Asia, Africa, and Australia. There are approximately 100 species known to exist in it (Pornpongrungrueng *et al*., 2016), with Asia having the highest diversity and 36 are located in India (hooker 1882), which is scattered across all continents with the exception of Antarctica. Some members of this genus are ruderal, whereas other plants of economic significance are weeds and relatively tiny, herbaceous, shrubby weeds.

Species of this genus are used in traditional and medical purpose, and included as ornamental plants and its special type of inflorescence is found in their plant in which small flowers come together and form a disc Which is called capitulum. Plants include shrubs, herbs, there are many plants this genus which are traditionally used in the treatment of diseases like wound healing, (Pang *et al*., 2017), skin diseases, intestinal disorders, pain, cancer, wound healing Malaria (Upadhyay *et al*., 2013), Cancer, Antimicrobial activities, (Zhu *et al*., 2011) tumour, diabetes (Widhiantara, 2021). Extracts of leaves, flowers, roots etc. of the plant are considered useful because plant extracts contain important phytochemicals (Sinha *et al*., Sasidharan *et al.,* 2011)

In previous studies, many weeds from the family Asteraceae genus *Blumea* have been identified, which interfere with the growth and development of crop plants (Nayak *et al.*, 2023) Some plants indirectly affect the crop by growing in the fields which grows uncontrollably and absorbs all the nutrients from the soil, it stops the growth of the crop plant. Thus, this weed destroys the existence of native species. Research is needed to develop knowledge on the traditional use of these weeds.

Banswara district, located in the southernmost part of Rajasthan, is a district with rich of forest wealth and plant diversity, where 70% of the population is from tribal community. They are aware of the use of plants in traditional medicine which can help in collecting information about the medicinal value of plants and unknown traditional medicinal plants. but it would prove more useful if a comprehensive survey of the traditional use of all plants belonging to a family single genus *Blumea* is focused on, keeping all these aspects in mind this research paper includes A Survey

on Floristic study and traditional use of Genus *Blumea* (Asteraceae) in the Banswara District.

Material and Methods

Study area-The survey was conducted in Banswara district which is located in the southernmost part of Rajasthan at 23.55°N 74.45 E, an average elevation of 302m (991ft) and normal annual rainfall is about 82.59cm (32.52inch). The district has a good wealth of forests and a diverse range of plants. Tribal people make up over 70% of the district's population. They can assist in gathering information about the medicinal value of plants and unidentified traditional medicinal plants because they are aware of the use of plants in traditional medicine. A survey was carried out from December 2022 to November 2024 from various parts of the district, taking into account the district's geographic position, climate, season, and plant diversity and various medicinal uses of plants.

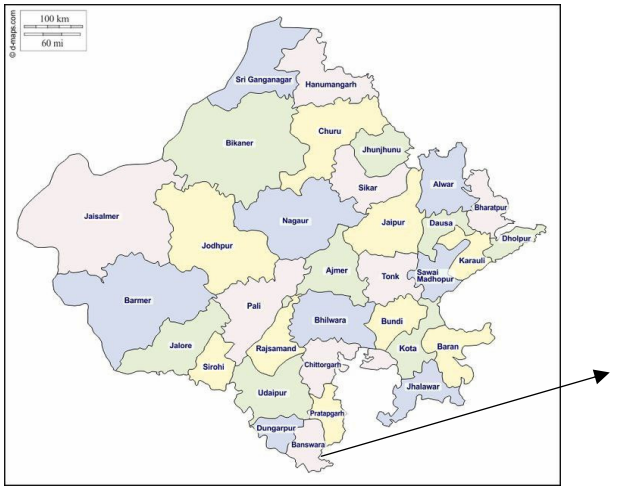

Fig. 1 : Study area

Methodology

Field surveys, questionnaires, interviews, and other techniques are employed in the plant survey. The district was studied in several locations during various seasons, and locals were asked about the plants' distribution, habits, uses, and native names. Interviewed people who had knowledge of herbs among the local people, so that the information about their medicinal uses could be well understood. For identification, plant specimens were collected in polybags, these were kept between books in a dry place without moisture and dried for a week. After complete pressing, the herbarium sheet was prepared. For identification also used photography of leaves, flowers, and whole plants from its location.

Result and Discussion

Genus- *Blumea*

Species- *B. axillaris* (Lam.) DC.

Common name -wool flower, pink *Blumea*

Description- Herbs with strigose stems, 35–85 cm high. Obovate, obtuse, serrate, glandular, covered in simple and glandular hairs, and almost sessile, with leaves up to 4.5 × 3.5 cm. Clusters of 5.2 x 6.2 mm heads are seen in the axillary and terminal thyrsi; the peduncle is strigose; the bracts are 5.3 mm long, linear, and hairy, with a smaller outer diameter. About 10 bisexual blooms are central, with a glandular, 3 mm long corolla. Corollas are thin; female flowers are numerous. Pappus 3 mm long; ellipsoid, ribbed, hairy achenes.

Medicinal uses- In addition to being used as an abortifacient, emmenagogue, lactagogue, and in steam baths, it is said to treat menstrual disorders such amenorrhoea and dysmenorrhea, as well as discomfort, bleeding, and infections.

Species- *B. eriantha* DC.

Common Name- Wool-Flower *Blumea*, Jangle Tambaku (Kannada),

Description- erect, 50 cm long, unbranched herb Reddish, with a few hairs small flower heads in crowded leafy panicles, elliptic to obovate, rough top, leaves measuring 3-6 x 1-2 cm Flowering season- November to May; sold in India and Nepal.

Medicinal uses- to treat kidney and skin conditions.

Species- *B. viscosa* (Mill)

Common name - Sticky *Blumea* or sticky false oxtongue.

Description- usually reaching a height of 30 to 90 cm. The leaves have pinnate or lyrate lobed edges and

range in shape from oval to obovate. while being collected and consumed on occasion. According to Flowers of India, it is a fragrant, upright perennial herb with branches that reaches a height of one to two feet.

Medicinal uses- joint pain, wound, fever.

Species- *B. sinuata* (Lour.) Merr.

Common name- Sow -thistle *Blumea.*

Description- herbs, tall, 20–180 cm, with a taproot, the stem is upright to ascending, frequently branching at the base, hairless to hairy, and has an unpleasant odour. The leaves have irregularly toothed margins and might be elliptic, obovate, or inverted-lance shaped. When the plant reaches maturity, its involucre bracts are frequently reflexed and purple-tinged, and its yellow flowers are produced in open panicles at the ends of its branches. The plant produces a brown, ribbed fruit called achenes.

Medicinal uses- Used to cure infections, menstruation, and discomfort.

Species- *B. lacera* (Burm.f.) DC.

Common name- lettuce leaf.

Description- An annual plant with an upright, single, or branching stem, hairy or glandular, and oblanceolate to obovate leaves with toothed or, in rare cases, lobulated margins. The inflorescence has a head (capitulum) in terminal panicles that resemble spikes. Bright yellow, 8 mm-diameter flowers and quadrangle, non-ribbed achenes make up the fruit.

Medicinal uses- Inflammation, stomach problems, fever, skin disease, edema, menorrhagia.

1. B.axillaris

2. B.eriantha

3. B. viscosa

4. B.sinuata

5. B. lacera

Five plant species from the genus Blumea have been identified and described in the survey of the Daisy family in the Banswara district. These plants thrive as weeds on roadsides and in unoccupied spaces. Every plant was a weed, including shrubs and herbaceous species.

The objective of this investigation is to compile and create a list of all the plants in the genus *Blumea* that are said to have pharmacological benefits, including those for wound healing, anti-bleeding, pain, fever, kidney disease, inflammation, stomach issues, and oedema. The medicinal properties of these plants have been evaluated but the mechanisms by which they work have not been analysed so far. Therefore, encouraging more research into these possible traditional medicinal herbs is another goal of this survey. In addition to offering information on medicinal plants, this study will promote clinical research on plant extracts to better identify the range of uses of these herbs in clinical settings. As a result, it will become more evident how these weed species can be used in scientific applications to preserve them rather than eradicate them.

References

Hooker, J.D. (1882). The Flora of British India*, London,* (3).

Nayak, S., Biswas, D., Roy, A., Roy, V. (2023). Study of weed flora in the central region of Chhattisgarh: a scientific survey. *Bulletin of environment pharmacology and life sciences,* **12(7)**, 47-53.

Pang, Y., Wang, D., Hu, X., Wang, H., Fu, W., Fan, Z., Chen, X., & Yu, F. (2014). Effect of volatile oil from *Blumea Balsamifera* (L.) DC. leaves on wound healing in mice. *Journal of traditional Chinese medicine = Chung i tsa chih ying wen pan*, **34**(*6);* 716–724. https://doi.org/ 10.1016/s0254-6272(15)30087-x.

Pornpongrungrueng P, Gustafsson M.H, Borchsenius F, Koyama H, Chanta ranothai P. (2016). Blumea (Compositae: Inuleae) in continental Southeast Asia. *Kew Bulletin*. ***71***(1), 1-46.https://doi.org/10.1007/s12225-016-9612-2.

Sasidharan, S., Chen, Y., Saravanan, D., Sundram, K. M., & Latha, L. Y. (2011). Extraction, isolation, and characterization of bioactive compounds from plants' extracts. *African journal of traditional, complementary, and alternative medicines*, **8**(1).

Sinha, D., Banerjee, S., Majgaonkar, A., Pomila, D.S., Chanda, S., Chatterjee, M., Bhattachar-ya, R., Maurya, A.K. (2024). *Blumea lacera* (Burm.f.) DC: A review on ethnobotany, phytochemistry, ancient medicinal and pharmacological uses. *Plant Science,* **11**(2); 161–174.

Upadhyay, H. C., Sisodia, B. S., Verma, R. K., Darokar, M. P., & Srivastava, S. K. (2013). Antiplasmodial potential of extracts from two species of genus Blumea. *Pharmaceutical Biology*, **51**(10); 1326–1330. https://doi. org/ 10.3109/13880209.2013.790453.

Widhiantara, I. G., & Jawi, I. M. (2021). Phytochemical composition and health properties of Sembung plant (*Blumea balsamifera*): A review. *Veterinary world*, **14**(5); 1185–1196. https://doi.org/10.14202/vetworld.

Zhu, L., Tian, Y. J., Yang, L., & Jiang, J. G. (2011) Chemical composition and antimicrobial activities of essential oil of *Blumea megacephala*. *EXCLI journal*, **10**, 62–68.