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Therapeutic perspective of herbaceous plants of common occurrence of family Asteraceae found in Soor Sarovar Bird Sanctuary Agra (U.P.)

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ABSTRACT

The Soor Sarovar Bird Sanctuary (SSBS) area was surveyed during July 2021 to June 2022 to enumerate plant species used by local villages for medicinal use. Members of Asteraceae plays an important role in maintaining the health of mankind and the most common ethno- medicinal plants species are *Ageratum conyzoides, Blumea lacera, Echinops echinatus, Eclipta alba, Launea asplenifolia, Parthenium hysterophorus, Sonchus asper, Sphaeranthus indicus, Tridex procumbans and Vernonia anthelmintica,* plays significant role in the manufacturing of herbal medicine.

KEYWORDS

SSBS, Health of Mankind, Herbal Medicine

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Species of the family Asteraceae are mostly herbaceous and well represented throughout the area. The family as a whole occupies top ten position in the flora of India's Gangetic plain (Hooker, 1907). The adaptability of its members to varied habitat conditions seems to be responsible for their wide distribution. Therapeutic use of Asteraceae plants and their products as traditional medicines has been common since time immemorial by the people all over the world. The ethno medicine of India, particularly, the local health traditions and the written traditions such as Ayurveda, Siddha, Unani and Amchi utilizes, a large number of medicinal plants and animals products in the preparation of curative, protective and preventive medicines.

Ethno medicinal plants are widely used in worldwide in numerous disciplines of healthcare from thousand years. Ethnobotany, a modern branch of plant science is very old in concept but is new in its execution. Ethnobotany study highlights how the plants found in tribal areas and their communities could be conserved and utilized for the betterment of tribal races who exploit nature for their survival (Singh *et al*., 2019). Venkanna *et al.* (2018) surveyed at Rewari and Mahendragarh district of Haryana for the identification of medicinal plants and found 48 species of 26 families and more interestingly to know that local residents of that area are still using these plants to cure more than 60 different types of diseases.

Some other workers such as (Ganie *et al*., 2019, Negi *et al*., 2018, Bharathi and Prasad, 2017, Wagh and Jain, 2015, Vidyarthi *et al*., 2013) also observed similar type of information. The knowledge about plants that has come through generation is the main subject of this science, which has received much attention now a day in certain parts of the worlds. Some times Ethnobotany considers synonyms with either traditional medicine or economic botany. The term 'Medico-botany' is also used for this science. In real sense Ethnobotany include study of foods, fiber, dyes, tannins other useful and harmful plants, taboos, avoidance and even magico religious beliefs about plants (Jain, 1967a, Ford, 1978, Jain and Mudgal, 1984).

Ethnobotany is a multidisciplinary science defined as the interaction between plants and people. The relationship between plants with human cultures is not limited to the use of plants for food, clothing and shelter but also includes their use for religious ceremonies, ornamentation and health care (Schultes, 1992, Singh *et al*, 2018). Members Asteraceae plays an important role in maintaining the health of mankind and the most common ethno- medicinal plants species are *Ageratum conyzoides, Blumea lacera, Echinops echinatus, Eclipta alba, Launea asplenifolia, Parthenium hysterophorus, Sonchus asper, Sphaeranthus indicus, Tridex procumbans and Vernonia anthelmintica,* plays significant role in the manufacturing of herbal medicine. In present paper an attempt has been made to document the texa belonging to family Asteraceae as well as their ethno medicinal use from Soor Sarovar Bird Sanctuary, Agra, U.P.

Materials and Methods

Soor Sarovar Bird Sanctuary lies between N27º 14' 4″ and N27º 31' 51″ and longitude E77º 49' 38″ and E77º 52' 40″. The Sanctuary falls administratively in the Agra revenue district of Uttar Pradesh state. This scenic lake is about 20 km from Agra and 12 km from Sikandra is located within the Sur Sarovar Bird Sanctuary. Keetham Lake is linked by railway track at Keetham railway station and was declared as National Bird Sanctuary on 27 March 1991 by U.P. forest department. The riverine belt of River Yamuna surrounds the area of Sur-Sarovar.

The entire lake is formed in a catchment area of 7.99 km². Keetham Lake is pentagonal in shape. There are artificially created islands for shelter and breeding grounds for the migratory birds. Maximum area of Soor Sarovar Bird Sanctuary is covered by medicinal plant species, which signifies plant species were highly economic, medicinal potential, some of them which are used as an ethno medicinal purposes. Extensive field surveys were conducted during July 2021 to June 2022 in different rural and interior area of SSBS (Soor Sarovar Bird Sanctuary). The ethno medicinal information and associated folk claims were collected either by personal contact with local healers, village headmen, elder person of various rural communities near by local villages of SSBS. Interviews were arranged through the help of senior persons of the different rural communities. In each and every village, the different tribes were interviewed from as many localities as possible to obtained accurate and elaborate information regarding the drugs derived from various species of plants, mode of their application and therapeutic used in cancer disease. Field visits were also carried out to collect claimed plants for identification purpose.

Results and Discussion

The 55-70 years old people of nearby SSBS local community was interviewed and the information regarding indigenous medicinal plants belonging to family Asteraceae used against different types of diseases. The different plants and their parts used by tribal people to make their medicinal products for treating the various diseases are given in the table 1. It has been observed that 10 species belonging to 10 genera of family Asteraceae commonly grow in SSBS, Agra, Uttar Pradesh (table 1).

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Table 1. Medicinal plants belonging to family Asteraceae and traditionally used by local peoples of nearby SSBS

S. N.	Botanical Name	Common Name	Plant Part Used	Therapeutic Uses
1.	*Ageratum conyzoides*	Jungle pudina, Goat weed	Leaves, flowers, stem	Skin diseases, ophthalmic treatment, diarrhoea, dysentery and fever
2.	*Blumea lacera*	Kakronda	Leaves	Bronchitis, fevers and burning sensation
3.	*Echinops echinatus*	Gokhru, Utakatira, Oontkateli	Root, leaves, fruit and bark	Jaundice, hysteria, dyspepsia and sexual disability
4.	*Eclipta alba*	Bhangra, Bhringraj	Stem extract, leaf extract	Hair loss and whitening of hair, cuts, and wounds and spleen enlargement
5.	*Launea asplenifolia*	Jangli gobhi	Leaves	Rheumatism, kidney, liver dysfunctions and eye diseases
6.	*Parthenium hysterophorus*	Carrot grass, Congress grass	Whole plant	Skin rashes, herpes, rheumatic pain, cold and gynaecological ailments
7.	*Sonchus asper*	Dudhi	Stem, leaves	Wounds and boils
8.	*Sphaeranthus indicus*	Gorakhmundi	Whole plant	Mental illness, jaundice, diabetes, leprosy and fever
9.	*Tridex procumbans*	Kanphuli, Kumra, Coat Button, Ghamra	Leaves	Fresh wounds and blood clotting
10.	*Vernonia anthelmintica*	Kala zira	Whole plant	Asthma, sores, inflammatory swellings, skin ailments and itching of the eyes

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