

Ethnomedicinal And Anatomical Studies Of Some Aquatic Plants Of Sitamarhi District, Bihar

Gopal Jha

Research Scholar, University Department Of Botany

Babasaheb Bhimrao Ambedkar Bihar University Muzaffarpur, Bihar, India

Abstract: - The present research work “Ethno-medicinal and anatomical studies of some aquatic plants of sitamarhi district, Bihar” has been undertaken for several reasons. Sitamarhi District is a historical place and this is the birth of jagat janani Ma Sita wife of Shri Ram and daughter of Raja Janak. History reveals that this place was the capital of the kingdom of Raja Janak having political boundary adjoining Nepal and Madhubani from north and east. The Northern boundary is the international boundary of the country Nepal and is also bounded by district Muzaffarpur in south and Sheohar district and Motihari district from west. This district is situated in the Bagmati Lakhandai inter fluvial region on the left levee bank of Bagmati. It lies approximately between 26°10'-27°-1' N and 84° 34' -86°-44' N latitude and longitude respectively. Its survey shows 2199 sq Km area of the district.

Keywords: - Ethno-medicinal, Aquatic plants, Sitamarhi, Ma Sita.

LITRODUCATION

The aquatic plant have great roles. In the human life from the Primitive time in one from or the other for example the fruits of *trapa* (taro) *natans* var *bispinosa* (singhara, paniphal, water chest nut) an *nelumbo nucitera* (kamal gatta, corns, rhizomes and tubes of *colocasia esculenta* *eleocharis dulcis*, (Chinese water chesnut), *nelumbo nucifera* kamal kakri or bhen), *Scirpus grossus* and the seeds of *nelumbo nucifera* (makhana) an *Euryale terox* salish (Prickly makhana groundnut are very well known for their delieacies and economic value in India and elsewhere. Besid many aquatic plants like *Ipomoea* aquatic, *Nasturtium officinale*, *Nepux* *Neputunia*, *oleracea*, *Limnocharis flava*, *ottelia alismoides* from nutritious pods herbs. *Zizania* aquatic (Wild rice) provides edible grains for human difficult times. Several water plants make water clear. Not only water plant *phragmites communis* (Common feed) has long been used by contain tribes for that cling preparing articles of peasant crafts and as a ditch ban binder. In USA water hyacinth has been used to make crafts and farmiure under the water hyacinth utilization project (WHUP). Coming back to the true water plants of recent, water hyacinth (*Eichhornia crassipes*) has been found capable of demolishing heavy metal pollution caused by Industrial release carring Cd, Pb, Cr, Ni and the like in water bodies. Similarly. Then, there are aquatic plants capable of indicating the presence of metals in the sediments of water bodies. these are known as bio-indicators (Grasmuch et al., 1995) certain aquatic plants also prove useful in monitoring phytotoxic substances present in water. The ponds, pools lakes and reservoirs within the Sitamarhi district are interesting for the unique plant life they contain. The vegetation in the pond however is conspicuously uniform and appears to represent a natural and district of Bihar. Not with standing the fact aquatic plants are great aesthetic value and are of great utility of fish and wild life. The area under the present investigation is administratively divided in to three subdivisions

- And also these subdivisions are organized in to blocks
- Baigania
- Bajpatti
- Bathnaha
- Belsand
- Bokhra
- Choraut
- Dumra
- Majarganj
- Nanpur
- Parihar
- And etc.
- Sitamarhi Sadar

Sitamarhi district was formerly subdivision of Muzaffarpur district under Muzaffarpur division of Bihar. In 1972 Sub-division was upgraded as a district. The previous history was very glorious because Sitamarhi was the birth place of Jagat Janani Maa Sita wife of Sri Rama and daughter of Raja Janak. History reveals that place was the capital of the Kingdom of Raja Janak having political boundary adjoining Nepal and Madhubani from North and East. This district is traversed by many rivers – Lakhandai, Purani dhar Lalbakia. Besides these there are merely depression like chauras. Mauns throughout the district which are inhabited by many aquatic plants besides some ponds, ditches, and marshy depression are vergin.

II.OBJECTIVES

1. Trying to prove useful for human life by getting information about aquatic medicinal plants available in sitamarhi district.

III.PROBLEM DISCUSSION

- Although in India a wide spectrum of Aquatic flora is found but a survey of the literature reveals that the aquatic flora of Bihar, Still remains unexplored and there is no any exhaustive volumes encompassing the description of the aquatic plants species are reported to have attained the status of aquatic weeds in different Situation. Above 140 species the following three are the primary aquatic weed of the world.
- Echorhia sps.
- Hydrilla sps.
- Vallismaria sps.
- Fresh water bodies of the about 8 lakhs lac of availed in India

IV.METHODS OF PROBLEM SOLVING

- The research work embodied in the best upon the explanation and intensive floristic analysis of the aquatic plants of sitamarhi district during the period of four years (between 2014-2018).
- The methodologies followed for the collection of plants and preparation of the herbarium specimens were those suggested by Santapu (1955), Fosberg & Sachet (1965), and Jain and Rao (1977).
- Some of the salient features are being given below:-
- Sitamarhi district is divided into 17 blocks –Viz. 1.Dumra 2.Runisaidpur 3.Parihar 4.Bathnaha 5.Sonbarsa 6.Bajpatti 7.Sursand 8.Riga 9.Nanpur 10.Pupri 11.Bairgania 12.Bokhara 13.Suppi 14.Belsand 15.Majorganj 16.Parsauni 17.Charaut.
- The above mentioned blocks were designed as the collection centers and have been visited in different seasons of the year at regular intervals and collection of the specimens made- Explorative tours were arranged in the company of the local college students.
- The equipment used during these trips included collection box, plant presses, blotting sheets, new papers, plastic rope, alkathene bags, plastic containers, hoe scissors, knife, hand lens, horeceps, FAA, field-book, field-diary, ball pen, rubber bands, camera etc.
- A survey for the collection of aquatic plants in most part of the Sitamarhi district will be done by Approach to the problem explaining the methodology and technique to be employed.
- The copious notes on the ecology as per method proposed by R. Mishra.
- Collected specimens will be processed for herbarium preparation as method followed by CNH of botanical survey of India by using 2% mercuric chloride and Napthalene balls for herbarium protection.
- For anatomical studies the following methodology and technique to be employed after preserving the materials:-
- Epidermis will be taken out from leaf-both side of the surface employing using technique.
- After cutting VLS of leaf, stomatal type, number and pattern to be studied.

V.CONCLUSION

- In this study, abundant aquatic medicinal plants have been received in all blocks of Sitamarhi district.
- Studies have found that young people do not know anything about aquatic medicinal plants.
- A very large numbers of adults have been found to use aquatic medicinal plants.
- Due to water accumulation in sitamarhi district, most of the medicinal plants are found.

So the final conclusion is that as I made contributions that were beneficial for the human life.

REFERENCES

- [1] Deb, D.B., 1976 A Study on the Aquatic vascular Plants of India. Bull. Bot. soc. Bengal/26: 155-170.
- [2] Das, S.N., 1997. A Ethnobotany of Rajasthan Jour. Economic and Taxonomic botany, Vol. 21, No.3, P.587-605
- [3] Das, V.B., 1999 The Charak Sanhita (Translation and Commentary) Vo. I Pub. Sri Satguru publications, Delhi.
- [4] Govinda Rajan, K & Gopala Rao, S.V. & H.G., 1978 Studies on soil of India, New Delhi.
- [5] Gupta, S.K. & Grover, S.P. & Saxena, A.P., 1980 Aquatic weed problem in the river paisum (Banda district U.P.) Indian J. For 3:249-254.
- [6] Kirtikar, K.R. & Basu, B.D., 1935 Indian Medicinal Plants vols. 1-4 Allahbad.
- [7] Singh, O.P. & Singh S.K. 1972 Aquatic Angiosperms of Jaunpur District Bull. Bot. Soc. Bengal 23: 199-202.
- [8] Subramanyam, K., 1962 Aquatic Angisperms. Bot. Manoger.No. CSIR, New Delhi
- [9] Trivedi, B.S. & Sharma, P.C., 1965 studies on the Hydrophytes of Lucknow and Environs. I Distribution & Habit with a reference to ecological classification. Proc. Nat. Acad. Sci. India 35: 1-14.
- [10] Ram, Mohan and et. Al. 1975 Studies of Anatomical structure of some species of poaceae.
- [11] Paliwal, G.S. and Sahgal, 1981 Studies of leaf anatomy of some species.
- [12] Kachro, P. 1984, Aquatic biology in India.
- [13] Bressers, J. 1951, Botany of Rnchi district, Ranchi.
- [14] Jain,S.K. and Mudgal, v. 1999, Ahand bookof ethnobotany.