

# Studies of Plant Biodiversity Promoting Cultivation and Conservation Strategy of Rare Fruit Plants of Bihar

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**Abstract:** - Bihar covers 94,163 Km<sup>2</sup> area but lack floristic information and looking at the high rising value of food and food products necessity of nutritive quality and consumption of edible plant cultivated and their wild relatives exploration of different district of Bihar have been conducted since 2014 – 2017. These plants on large scale are basically identified by the tribal people and introduced in the local markets to earn economy. The present study reveals the current status of some rare fruit plants in Bihar. Several times plants are used as staple food while some are used at the time of scarcity like famine drought etc. This is represented by 13 fruits plants, all the genera and species and varieties have been enumerated with easy taxonomic and generic distributional records at state, National and global level. The valid names are provided along with author citation(s).

**Keywords:** - Fruit, Plants, Famine, Bihar.

## INTRIDUCTION

The knowledge of plant biodiversity of a fruit plants are the basis for promoting conservation strategies. It provides information on spatial and temporal distribution of plants as well as selection of plants and their habitat which need to be conserved (Uniyal and Singh 2014). The survey of fruit plants shall provide basic information for further studies and eco- biotechnological applications of economically importance of fruit plants. Bihar containing 9 division 38 districts 101 sub-divisions 533 blocks 130 towns lies between 27° 31.5" to 24° 20' 10"N latitudes and 88° 17' 40" to 83° 19' 50" E longitude.

## OBJECTIVES

Trying to prove useful for human life by getting information about rare plants available in Bihar.

## Materials and Methods

A survey was undertaken to collect information from traditional local people on the use of rare fruit plants in Bihar. The indigenous knowledge of local traditional local people and the native rare fruit plants used for medicinal purposes were collected through questionnaire and personal interviews during field trips. This study showed that many people in the studied area of Bihar still continue to depend on rare fruit plants at least for the treatment of primary healthcare.

## Climate

Bihar is characterized by hot and humid climate. It receives adequate rainfall from North East and South-West monsoons there are three well – defined session in Bihar viz. summer venny and winter. The summer session is in between March to June, it is hot and dry and temperature varies from 40 to 46° C. the Rainey session starts in middle of June and ends middle of October, the annual average rainfall is about 1200 mm. The winter starts in month of November and continuous up to February.

Table 1: Geographical location of Bihar.

Name of State	Lat.	Long.
Bihar	25.0961° N	85.3131° E

Table 2: List of Rare Fruit Plants of Bihar.

	Botanical Name	Vernacular / English Name	Family
01.	<i>Grewia asiatica</i>	Phalsa	Malvaceae
02.	<i>Carissa carandas</i>	Karonda	Apocynaceae
03.	<i>Pithecellobium dulce</i>	Jalebi (Manila tamarind)	Fabaceae
04.	<i>Ziziphus mauritiana</i>	Baer (Plum)	Rhamnaceae
05.	<i>Spondias mombin</i>	Hog Plum (Amra)	Anacardiaceae
06.	<i>Asparagus racemosus</i>	Satubar	Asparagaceae
07.	<i>Dillenia indica</i>	Elephant Apple	Dilleniaceae
08.	<i>Neolamarckia cadamba</i>	Cadamba	Rubiaceae
09.	<i>Artocarpus lacucha</i>	Monkey Fruit (Barhar)	Moraceae
10.	<i>Madhuca longifolia</i>	Mahua	Sapotaceae
11.	<i>Aegle marmelos</i>	Indian Beal	Rutaceae
12.	<i>Averrhoa carambola</i>	Star Fruit	Oxalidaceae
13.	<i>Syzygium cumini</i>	Jamun	Myrtaceae

Data were gathered randomly from literature and personal interviews.

## Results and Conclusion

A perusal of literature reveals that a number of botanists and explorers like Hooker (1848), Verma (1981), Paria and Chattopadhyay (2002) and many others worked on the floristic analysis of Bihar. Keeping this in mind and the necessity of nutritive quality and consumption of edible fruit plants cultivated and their wild relatives exploration of Bihar have been conducted. Some plants were found which needs improvement for cultivation. In the provided account broad pictures of rare wild fruit plants have been presented. The plants parts consumed their vernacular names have been collected from local people. This little known wild fruit are extensively exploited by the local people of Bihar and the neighboring areas as well known fruit. Other alternative is to increase their variety if modified will increase the commercial values and fulfill the demand by which general people can balance their budget by utilizing these wild wealths. So the final conclusion is that as I made contributions that were beneficial for the human life.

## Acknowledgements

Authors thank Head of the University Department of Botany, Babasaheb Bhimrao Ambedkar Bihar University, Muzaffarpur (Bihar) for all facilities time to time.

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DOI: 10.13040/IJPSR.0975-8232.12(4).2306-16

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