



WILD EDIBLE PLANTS (रानभाज्या) OF BHOR AREA OF PUNE(MAHARASHTRA): NUTRITIONAL, MEDICINAL AND CULTURAL SIGNIFICANCE

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Abstract: Wild edible plants locally known as रानभाज्या form an integral part of traditional food culture and indigenous healthcare practices. These plants, collected from forests, fallow lands, and agricultural fields, are highly valued for their nutritional richness and medicinal benefits. The present study documents more than 40 different wild plant species exhibited in a college-based ethnobotanical exhibition, highlighting their dietary significance, therapeutic uses, and socio-cultural importance. The methodology included identification of plants, preparation of herbarium specimens, documentation of local names, uses, and discussions with local communities. Results reveal that wild vegetables not only serve as an important source of micronutrients and antioxidants but also possess pharmacological properties such as anti-diabetic, anti-inflammatory, and digestive benefits. The national education policy (NEP 2020) emphasizes holistic, multidisciplinary and skill oriented learning. By considering this approach we integrated identification of the plants during exhibition of the wild edible plants. The paper concludes that wild plants from Bhor area, Pune holds immense potential in addressing malnutrition, lifestyle diseases, and biodiversity conservation, and emphasizes the need for awareness, conservation, and value addition.

Index Terms: Ranbhajya, Nutritional, Medicinal, Vegetables.

I. INTRODUCTION

There are 32 lakh 83 thousand species of the plants in the world and Indian tribals use more than 1530 plants in their daily diet. This includes 145 tubers, 521 root vegetables, 101 flowering vegetables, 647 fruit vegetables, 118 legumes. There are large numbers of plant species, which can be used to fulfill nutrition requirement of growing population of the world. Tribal are the part of nature, they fulfill most of their needs from wild resources. They got knowledge of wild edible plants traditionally. This traditional knowledge is useful to develop new food sources.

Wild edible plants (WEPs) are the species that are neither cultivated nor domesticated, but available from their natural habitat and used as a source of food. Use of wild edibles is diminishing at fast pace but it is clear that in many parts of the world the use of wild edibles is still prevalent. Consumption of wild edibles is a major source of vitamins and micro-nutrients for people using only vegetarian diets rich in carbohydrates.

A considerable area of land in the sub division Bhor is under paddy soil. Paddy lands are located mainly in western portions of the sub division immediately to the east of the Western Ghats mainly in the talukas of Bhor. Bhor forest sub division consists of 35,941.392 Ha. of forest area spread over in three talukas of Pune district namely Bhor area.

Wild edible plants, known as रानभाज्या in Marathi, represent an age-old tradition of sustainable food gathering in rural and tribal communities of Maharashtra. These plants are seasonally available, require no cultivation, and are collected from forests, riverbanks, and wastelands. Historically, रानभाज्या have acted as a crucial food source during drought, famine, and food scarcity, thus symbolising resilience and food security.

Nutritionally, these plants are rich in proteins, fibers, vitamins, iron, calcium, and essential micronutrients, often surpassing cultivated vegetables. Medicinally, local communities use them in treating digestive disorders, fever, diabetes, skin problems, and anaemia. Culturally, their collection and preparation are deeply rooted in local festivals, rituals, and culinary traditions.

Despite their value, modernization and urbanization have reduced awareness and consumption of रानभाज्या, leading to a decline in

traditional knowledge. Hence, the present article aims to scientifically document more than 40 wild edible plants, their dietary values, and medicinal importance through exhibition

The practical activity of the wild edible plant exhibition by Botany department enhanced observation skills, teamwork and communication. The study of ranbhajya reflects indigenous wisdom in food, health and biodiversity conservation . NEP 2020 promotes the revival of such traditional knowledge systems, making education rooted in local culture.

II.METHODOLOGY

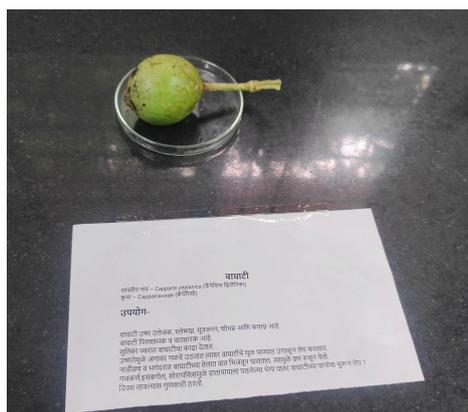
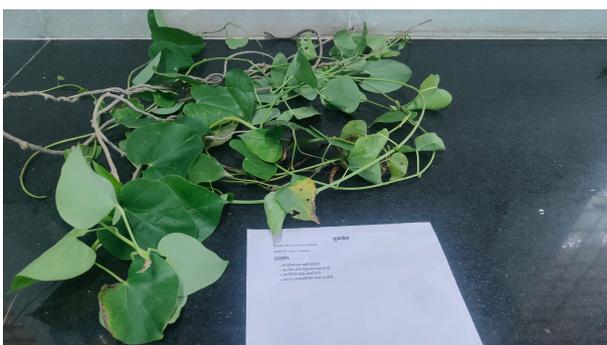
2.1Study Area & Community Interaction:

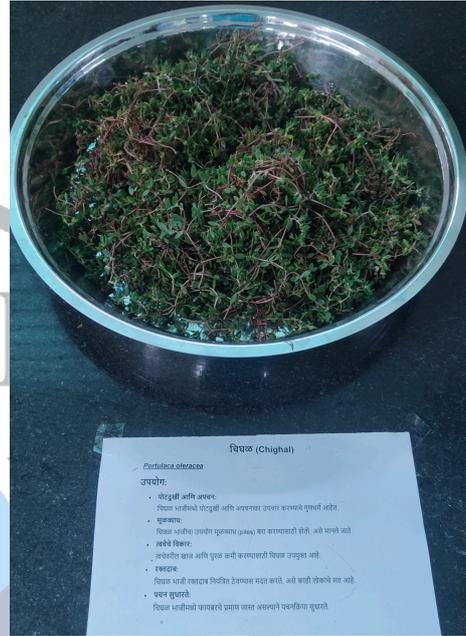
The study was conducted in rural and semi-urban regions of Bhor area, Pune where रानभाज्या are commonly used. Interaction with elders, farmers, and women’s groups provided ethnobotanical insights. The ranbhajya displayed in the Department of Botany, Anantrao Thopte college, Bhor. The actual collected plants displayed with information like local name, scientific name , medicinal uses for observers and students .



2.2 Collection & Identification:

Identified more than 40 different wild edible plants were collected and displayed in an academic exhibition. Identification was done using local floras, herbarium consultation, and expert validation.





2.3 Documentation Parameters:

- Local (Marathi) name and scientific name
- Part used (leaf, stem, fruit, tuber)
- Culinary use (vegetable, chutney, curry, soup)
- Medicinal importance
- Nutritional value (based on literature)

2.4 Analysis:

Plants were categorized into leafy greens, fruits, legumes, tubers, and climbers. Literature was reviewed to support medicinal and nutritional claims.

III.RESULT AND DISCUSSION

The following list represents 40 wild edible plants (रानभाज्या) documented from Maharashtra. These species highlight the wide diversity of foods traditionally used for both diet and medicine.

| Sr. No | Local Name (Marathi) | Scientific Name | Family | Culinary Use | Medicinal Importance |
|--------|----------------------|------------------------|----------------|----------------|---------------------------------|
| 1 | Lal math | Amaranthus cruentus L. | Amaranthaceae | Vegetable | Rich in iron, anti-anemic |
| 2 | Shevga | Moringa oleifera Lam. | Moringaceae | Curry, bhaji | Immunity booster, anti-diabetic |
| 3 | Takla | Cassia uniflora Miller | Caesalpinaceae | Vegetable | Improves digestion, antioxidant |
| 4 | Korphad | Aloe vera L. | Liliaceae | Chutney, curry | Digestive aid, skin care |

| | | | | | |
|----|--------------|-----------------------------------|----------------|---------------------------------------|---|
| 5 | Giloy | Tinospora cordifolia Hook | Menispermaceae | Soup | Immunity enhancer, antipyretic |
| 6 | Kartoli | Mimordica dioica Roxb ex will | cucubitaceae | Fruits are used as Vegetable | Skin diseases , weight loss |
| 7 | Pathari | Lamaea procumbens Ramyya and Rajg | Asteraceae | Leaves used as Vegetable | Acidity reducer, anti-inflammatory |
| 8 | Rankel | Ensete superbum Chesm | Musaceae | Flower used as Vegetable | Weight loss , immunity booster |
| 9 | Ghol | Portulaca oleracea Linn | Portulacaceae | leaves are used as vegetable | Liver ,kidney , bladder problems . |
| 10 | Sarata | Tribulus terrestris L. | Zygophyllaceae | leaves are used as vegetable, | Urinary diseases , stomache |
| 11 | Kathemath | Amaranthus spinosus L. | Amaranthaceae | leaves are used as vegetable | Kidney disorder, indigestion . |
| 13 | Ambushi | Oxalis corniculata L. | oxilidaceae | leaves are used as vegetable | Anthelmintic, fever , astringent , diuretic |
| 14 | Kurdu | Celosia argentea Linn | Amaranthaceae | leaves are used as vegetable | Dysentery, tuberculosis, diarrhoea . |
| 15 | Tandulsa | Amaranthus viridis Linn. | Amaranthaceae | leaves and stem are used as vegetable | Antidote , Eye disease, mouth wash . |
| 16 | Chnadanbatwa | Chinopodium album L. | Chinopodiaceae | leaves and stem are used as vegetable | Deworming , antinflammatory |
| 17 | Kunjeer | Digera musicata Mart. | Amaranthaceae | leaves are used as vegetable | Urinary disorder , constipation |
| 18 | Amarkand | Dioscorea bulbifera L. | Dioscoriaceae | Tuber used as vegetable | Cure piles |

| | | | | | |
|----|---------------|---|---------------|---------------------------------------|--|
| 19 | Chighal | <i>Portulaca quadrifida</i> L. | Portulacaceae | leaves and stem are used as vegetable | Abscesses and swelling , toothache |
| 20 | Bharangi | <i>Clerodendrum serratum</i> Moon. | Verbenaceae | Flower used as Vegetable | Cough and cold |
| 21 | Mekhi | <i>Cucumis setosus</i> L. | cucubitaceae | Fruits are used as Vegetable | Skin diseases , burns |
| 22 | Suran | <i>Amorphophallous paeoniifolius</i> Blume. | Araceaeae | Corm as vegetables | Piles |
| 22 | Punarnava | <i>Boerhavia diffusa</i> L. | Nyctaginaceae | leaves are used as vegetable | Kidney and lung diseases |
| 23 | Chaicha mohor | <i>Dioscorea pentaphylla</i> L. | Discoreaceae | Flower are used as Vegetable | Immunity enhancer, antipyretic, swelling . |
| 24 | Aghada | <i>Achyranthus aspera</i> L. | Amaranthaceae | leaves are used as vegetable | Weight loss , immunity booster, kidney disorder . |
| 25 | Kovla bambu | <i>Bambusa vulgaris</i> L. | Poaceae | Stem used as vegetable | Anticancer , antioxidant , anti-inflammatory , antiulcer . |
| 26 | Terda | <i>Impatiens balsamina</i> L. | balsaminaceae | leaves are used as vegetable | Antifungal antibacterial |
| 27 | Kena | <i>Commalina benghalensis</i> | Commelinaceae | leaves are used as vegetable | Indigestion , jaundice |
| 28 | Waghati | <i>Capparis zeylanica</i> L. | Cappariaceae | Fruits are used as Vegetable | Skin diseases, cough and cold , kidney diseases . |
| 29 | Alambi | <i>Agaricus bisporous</i> Lange | Agaricaceae | Fruiting body used as vegetable | Protein source , weightloss , immunity booster . |

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|----|---------------|----------------------------------|-------------|---------------------------------------|----------------------|
| 30 | Pandhara kuda | Holarrhena pubescens (Linn) Wall | Apocynaceae | leaves and stem are used as vegetable | Asthma , stomachache |
|----|---------------|----------------------------------|-------------|---------------------------------------|----------------------|

Nutritional & Medicinal Value:

- High iron content in Chulai, Tandulja, Takla helps combat rural anemia.
- Vitamin C and antioxidants in Khat sur, Mulberry, Shevga leaves boost immunity.
- Antidiabetic potential of Shevga, Giloy, Neem aligns with traditional Ayurveda.
- Digestive health benefits from Takla, Patil bhaji, Katole help rural diets.

IV.CONCLUSION

Wild edible plants (रानभाज्या) of Bhor area represent a treasure of nutrition, medicine, and cultural heritage. The documentation of 40 species from the exhibition emphasizes their dietary richness, therapeutic potential, and role in sustainable food systems. Reviving their use can help address malnutrition, lifestyle disorders, and biodiversity loss. Further research, value addition, and awareness programs are essential for integrating रानभाज्या into modern diets and promoting local food security. NEP highlights environmental education, documenting ranbhajya builds awareness about bio-diversity conservation, sustainable diets. Encouraging students to prepare scientific notes, providing knowledge about wild edible plants. This exhibition fosters research oriented thinking and innovation at under-graduate level.



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