Matvi: An Eco-Cultural Tradition of Wildflower Decoration from Rajapur Tehsil, Ratnagiri Dist., Maharashtra, India

Pooja Ghate1*, Manali Rane2, Aparna Watve3

1* Pooja Ghate is Project Assistant at Bombay Environmental Action Group. (80 Empire building, 2nd floor, 134/136 D N Road, Fort, Mumbai - 400001). Email : poojaghate0287@gmail.com (Author for correspondence). She has worked on various ecological assessments and cultural aspects of sacred groves in the Northern Western Ghats region. She has a keen interest in studying seed ecology, lateritic plateaus, and plant-animal interactions.

2 Manali Rane is a Scientific officer at Bombay Environmental Action Group. (80 Empire building, 2nd floor, 134/136 D N Road, Fort, Mumbai - 400001). Email : manalirane6588@gmail.com. Her research interests are ecology and culture of grassland and rock outcrops ecosystem.

3 Aparna Watve is a coordinator of IUCN Western Ghats Plant Specialist Group, 34/6, Gulawani Maharaj Road, Pune 411004. Email : aparnawatve1@gmail.com. She has a doctorate in vegetation ecology. Her research is focused on socio-ecological studies of rocky plateaus in the Western Ghats region. She teaches trans-disciplinary subjects on environmental and social interactions at the post-graduation level.

Abstract

Various worships are associated with plant parts such as leaves, flowers, and fruits. These parts are harvested from wild and domesticated landscapes used in socio-religious ceremonies in India. The present study was carried out in the Konkan region of Maharashtra to document a lesser-known practice of ‘matvi’ followed during the Ganesh festival. Matvi includes the ceremonial decoration of a wooden canopy with seasonal plants. A review of primary and secondary sources of information revealed that the matvi tradition is strongly linked to the socio-ecological landscape of the Konkan-Malabar eco-region. A survey conducted in eight villages of Rajapur tehsil documented plant species used in matvi. This article also discusses the practice’s geographical, ecological, economic, and cultural aspects, including collection sources, local trade, and people’s perceptions. However, changing nature of the tradition indicates a probable threat to this human-nature relationship.

Keywords – Ganesh Chaturthi, seasonal flora, endemic, adornment, Konkan

Acknowledgments

We are grateful to Bombay Environmental Action Group (BEAG), especially to Hema Ramani, Campaigns Director, for providing the needed facilities and encouragement for this work. We thank The Habitat Trust (THT) for financial support for the work leading to this paper which is part of the THT grant to Bombay Environmental Action Group for the project ‘Conservation Management Plan for Biocultural Heritage of Konkan Sadas (2022-2023).’ We are also thankful to the local people of the study area for sharing their knowledge. We thank Dr. Ankur Patwardhan for reviewing the manuscript internally and for his critical comments and inputs. Thanks are also due to Pankaj Ghate and Dr. Madhav Ghate as local experts. We are also grateful to Dr. Rutuja Kolte, Omkar Moghe, Harshad Tulpule, Kamal Afandkar, and Pralhad Shirvadkar for their valuable contribution.

Introduction

Besides ecology, plant species play a key role in shaping human culture. The term ‘eco-cultural tradition’ can be defined as a folk practice followed and transferred over generations with the inclusion of diverse interactions between humans and the natural environment, which combine ecological and cul-
ultural aspects of the landscape. Nature and especially plant-related practices and rituals form an integral part of the cultural ceremonies, which can be broadly grouped as ‘eco-cultural traditions.’ Most of the religious ceremonies and rituals in India have some ecological context and are associated with the use of specific flora as celebrations of festivals such as Holi, Navratri, Ganesh festival, and Diwali is linked to the agricultural calendar (Sanford 2012; Ghate 2018; Swaminathan 2018; Malakar 2021). In Maharashtra, Patri-pooja (worship with leaves of plant species) is an important tradition followed in various worships (= pooja) such as Mangalagauri, Haritalika, Varalakshmi-pooja, Rishi-Panchami, Anant-pooja, Devinavratra-pooja (Ghate 1998; Datar et al., 2011). Such practices indicate an intricate relationship of indigenous communities with their surrounding environment. These are included in the cultural ecosystem services and are part of the intangible values of biodiversity and ecosystems (Malhotra et al., 2000; Tengberg et al., 2012).

Matvi or mandpi is a peculiar eco-cultural tradition seen in the Ratnagiri district of Maharashtra. In this practice, wildflowers and fruits are arranged on a wooden square or rectangular frame which is tied to the roof above the idol of Lord Ganesha during the Ganesh festival. A similar practice is observed under different vernacular names such as ‘mati-mhalyar mandap,’ ‘mantap,’ ‘matoli,’ or ‘matovi’ in the neighbouring district of Sindhudurg and Goa State (Bhave & Palsarkar, 2005).

Documentation of this tradition is limited to popular articles and a single semi-scientific publication by Bhave & Palsarkar (2005). Datar et al. (2011) have mentioned matvi in their review of eco-traditions of people living around Bhagwan Mahaveer National Park in Goa state. But a detailed description or discussion on the ecological context of this practice is lacking. Given this, the present study in Rajapur tehsil was undertaken to document the cultural and ecological aspects of matvi. The primary objective of the present study was to document the use of wild plant species in matvi. Additionally, this paper also discusses the sources of collection, availability, and abundance of the species in the local landscape and the perception of natives towards following this tradition.

Materials and Methods

Study Area:
Rajapur tehsil (73.31° E longitude and 16.39° N latitude) is located in the southern part of Ratnagiri district in Konkan (Fig 1). Konkan region (spread across three districts viz. Raigad, Ratnagiri, and Sindhudurg) is a rugged part of the west coast of Maharashtra (0-1425 m above MSL), lying between the mountain range of Western Ghatls popularly known as Sahyadris and the Arabian sea (Prabhu 2013). The present study area lies in Sahyadri-Konkan Ecological Corridor (CEPF 2007). This region shows distinct geographical features, which can be characterized by varied landforms such as gently

![Figure 1: Study Area](image-url)
undulating low plateaus, cliffs in the west, very steep slopes, ridges, and high hills towards the east (Apte et al., 2012). Lateritic (rocky) plateaus, locally known as saddas, are the most striking landforms covering the largest land surface in the central and southern Konkan, especially Ratnagiri and Sindhudurg districts (Prabhu 2013).

On a broader scale, the vegetation of the Konkan landscape comprises swampland intertidal forests along the estuaries and creeks, plateau vegetation at lower elevations representing moist to deciduous forests, semi-evergreen forests interspersed with patches of montane subtropical evergreen forests, west coast semi-evergreen forests along the Ghats, and also coastal areas with small grasslands and scrub (Champion and Seth 1968; Apte et al., 2012). The vegetation on the hilly slopes and pockets on the plateaus are semi-evergreen to mix deciduous or scrub forest patches predominated by Tectona grandis, Terminalia paniculata, Macaranga peltata, Careya arborea, Acacia spp, Ixora brachiata, Syzygium cumini, Bombax ceiba, Carissa carandas, Flacourtia indica and Ficus spp. The lateritic plateaus, often considered barren land, show drastic seasonal transformation in monsoon with diverse life forms dominated by annuals (Fig 2).

Surrounding land use is mainly agri-horticulture (Singh 2014). The main crop is paddy which is grown in terraces on the sada and along estuaries. Commercial orchards of Cashew-nut (Anacardium occidentale) and mango (Mangifera indica) are present along the hill slopes; coconut (Cocos nucifera) and Areca nut (Areca catechu) are grown along the homesteads, and estuarine areas. The majority of the residents are still dependent upon agriculture, fishing, and livestock for subsistence. The northern part of the study area is urban, including the Ratnagiri city, and its surroundings are peri-urban, while the southern area is rural with natural landscapes. The population in the study area is predominantly rural and continues to be deeply rooted in indigenous culture and finds its expression through diverse rituals and festivals, which are mostly associated with an agricultural calendar. Main festivals like Holi (in the months of Feb/Mar), Ganpati (Aug/Sept), Navaratri (Sept/Oct), and Diwali (Oct/Nov) are celebrated with social gatherings. Apart from these, people follow many other religious ceremonies, animistic traditions, and rituals that venerate natural resources like ponds, springs, sacred groves, and ancient trees (Malhotra et al., 2000; Singh, 2014).

Data Collection

Primary data was collected from eight survey villages (Adivare, Ambolgad, Ansure, Barsu, Devache Gothane, Devihasol, Kasheli, and Navedar, Fig 1) were categorized as a) rural, b) peri-urban, and c) urban following Goswami 2018 and Woltjer, 2014. Regular visits to the study area were conducted from Aug to Sep 2022 with emphasis on participation in key specific traditional practices like matvi. Rapport was easily established with the local community owing to the researcher’s familiarity with the neighbourhood and use of vernacular language, i.e., ‘Marathi.’ This also helped to check the validity and reliability of the data. The following methods were used in this study: a) direct observations, b) focus
group discussions (FDGs), c) visits to the local market, and d) key informants’ interviews. A list of broad reference questions is provided in the questionnaire (Annexure 1). A questionnaire was prepared separately for each of the methods based on the main research questions.

Field visits were conducted a day before Ganesh Chaturthi to record collections of natural plant material for matvi decoration. Focus group discussions were held with the household members to get insights about aspects such as sources of plant material used, changes in the practices, and any other similar traditions followed at the household level. The local market in Rajapur town was visited a day before the Ganesh festival to note the plant resources that were available for sale for matvi decoration. Apart from this, specific questions regarding the spread, origin, and association of the matvi practice and religious links were posed to around 35 key informants, including priests working in rural and urban areas of Ratnagiri district and also in Mumbai, a metropolitan city where migrants from the region have settled for many years and maintain strong ties with the places of origin in Konkan. Community elders were also interviewed to understand their perception of changes in the landscape, and local naturalists were contacted to find out the extent of the geographical spread of this practice and likely associations (family, friends).

Plants were identified using floras and on the field itself with plant experts. Primary data was supplemented with information available in the form of newspaper articles, e-books, and research papers.

**Results**

The geographical spread of matvi tradition:

Available references and discussions with key informants helped us understand the geographical spread of matvi practice. The extent of this tradition can be seen in varied geographical regions. It is recorded from southern parts of Ratnagiri dist., almost all parts of Sindhudurg district and Goa State up to some regions in Karnataka like coastal Karwar and Belgaum. In Goa, the tradition is termed ‘matoli’ in the vernacular Konkani language. It is a common practice followed in every household and at the community level. Conducting matoli decoration competitions is a regular feature in Goa State. However, the scale of this tradition is much lesser in the Ratnagiri district.

Documentation of this practice, including the species used in matoli, is given by Bhave & Palsarkar (2005) and Datar et al. (2011). Interestingly, apart from the area between South Konkan and North Kanara, there is no report of this tradition from any other parts of the Western Ghats or Malabar region. Matvi seems to be distinctive to this eco-region. A distant similarity with this can be seen in the Onam festival in Kerala, held during Aug-Sept. Onam includes floor decorations named Pookalam (= flower rangoli or patterns made of flower petals) as against hanging decorations of matvi. In Pookalam, wild as well as cultivated flowers are being used (Sachdev 2019).

Cultural features of matvi:

In the Konkan region, matvi is one of the remarkable eco-traditions seen on the occasion of Ganeshotsav (=Ganesh festival). It is a festival commemorating the birth of God Ganesha. The first day of the festival is Ganesh Chaturthi, also known as Vinayak Chaturthi, Chavithi, or Chouthi. An idol of Lord Ganesha made out of clay soil is worshiped on Chaturthi, i.e., the fourth day in the sixth month of the Indian civil calendar Bhadrapada (which falls in Aug or Sept of the Gregorian calendar). These idols are installed privately in homes as well as publicly. The festival is usually observed for 4-10 days of Bhadrapada during the waxing moon phase (Shukla Paksha). The festival ends on the tenth day (i.e., Anant Chaturdashi) with immersion (visarjana) of the idol in a nearby water body.

The month also has other traditions of worship along with that of the idol of Lord Ganesha. Haritalika pooja is on Tritiya, i.e., the third day of Bhadrapada, where Lord Shiva and Goddess Parvati are worshiped and garlanded with patri (leaves) by young girls and married women. Rushi Panchami is on the fifth day of Bhadrapada. In some households, a pair of goddesses, Gauri (elder and junior), is also worshipped alongside the Lord Ganesha.

Our observations showed that all of these worships have a component of ritualistic offerings of patri (leaves) and wildflowers that are collected from surrounding landscapes. But matvi differs in one significant aspect that the plants are neither worshipped nor offered to the deities but are primarily used to decorate the sacred space.

Physical characteristics of matvi:

Various rituals, which are part of the Ganesh festival, take place in a designated space in the house, where the idol of Lord Ganesha is placed. It is not necessarily the devghar (a sacred space in the house where idols of the deities reside throughout the year).
This designated space becomes a sacred space till the immersion of the idol. A square or rectangular wooden frame called matvi is hung exactly above the Ganesh idol, and it is laden with locally available plants, flowers, and fruits (Fig 3). The plant material is generally collected the day before Ganesha Chaturthi and hung on the matvi. This collected material is termed ‘fulora,’ roughly translated as ‘blooms.’ In some places, it is locally known as Sonaki (Senecio bombayensis) as well. The plant material is generally collected the day before Ganesha Chaturthi and hung on the matvi. This collected material is termed ‘fulora,’ roughly translated as ‘blooms.’ In some places, it is locally known as Sonaki (Senecio bombayensis) as well. The entire sacred space is decorated by family members before the arrival of Lord Ganesha. The fruit of Cocos nucifera and leaves of Mangifera indica are tied first as they are considered auspicious in all Hindu rituals. A list of ‘fulora’ observed in the study area is included in Table 1. Artificial garlands and flowers are also used with natural materials, indicating a cultural shift. Once matvi decoration is finished, it is kept as it is till the departure of Lord Ganesha. Fresh natural elements are not added or replaced even if they have dried out.

Socio-cultural features of matvi:

Households were sampled from the study area to document natural vs. artificial decorative material use. These included households of different communities viz. Bhandaris, Brahmins, Kunbis, and Marathas mainly to get an overview of the prevalence of practices in these communities. All the matvis in households had a combination of natural as well as artificial flora (flowers made of plastic and/or paper). In sampled villages, all except Kasheli and Adivare villages follow this tradition. Key informants in these two villages informed that they are aware of the matvi tradition but do not practice it now. The wooden frame above the Lord Ganesha idol was seen in most of the houses and appeared to be the last remnant of the tradition from the past in these villages. In contrast to this, the households in the remaining six
villages, viz. Ambolgad, Ansure, Barsu, Devache Gothane, Devihasol, and Navedar use natural and domesticated plant materials in matvi decorations. In the villages where the matvi tradition is still practiced actively, instead of only collecting flowers and fruits from the landscape, people were found to prefer arti-
ficial decorative materials as well (Fig 4).

**Ecological features of matvi:**

Plants resources used in the matvi decorations are collected from surrounding areas. The main landscape element from where the plants are being collected is the lateritic plateau, as most of the villages are located around these plateaus, i.e., sadas. These plateaus have diverse habitats, such as open grassland, pockets of scrub vegetation, and bare rocks. People situated in Ansure, Barsu, Devache Gothane, Devihasol, and Navedar villages were observed to collect plants directly from the plateau because it is the nearest and easily accessible from homesteads (Fig 5 and 6). None of the households that were visited in these villages reported purchasing the species. But in Ambolgad village, people only collected Impatiens rosea and Senecio bombayensis from the plateau and bought other plants from the local market. A total of 10 species were used in the decoration of matvi from the study area. Table 1 shows the list of plants and the landscape element where they are found. Species were collected from household gardens and/or orchards. Three species out of ten were commonly cultivated, and the remaining 7 were found to be wild. Out of these, Senecio bombayensis is endemic to the Western Ghats, and Utricularia reticulata is endemic to the Western Ghats-Sri Lanka hotspot.

**Local Perceptions:**

Perceptions of respondents regarding the availability and abundance of the species were recorded.
The cultivated species were plentiful in the plantation areas, and their parts were easily available to all. Among the wild species, *Senecio bombayensis* was profusely observed in the landscape and was seen in all households. But the key respondents reported that *Senecio bombayensis* was less abundant this year than the previous year, and one respondent suggested that it is probably affected due to the wide use of weedicides and pesticides in the surrounding orchards and man-made fires on the plateau. Respondents in all the villages also observed that the landscape-level abundance of *Utricularia reticulata* has reduced considerably in the last few years. *Mussaenda glabrata, Impatiens rosea* and *Trichosanthes tricuspidata* were quite common and easily available, as noted by the interviewee. *Gloriosa superba* is difficult to find. Elderly respondents and knowledgeable individuals expressed an opinion about the landscape that there is a reduction in the number of mature individuals of *Celastrus paniculata*. Hence, in conformity with them, its fruits have become very rare and found only at specific locations on the plateaus.
Economic aspect:

A visit to the local market in Rajapur town helped to understand the economic aspects of this practice. The previous day of the Ganesh festival, the market was full of fruits, vegetables, and other produce necessary for the Ganesh festival. The people in Rajapur town buy a set of natural elements (plant parts) from the local market. The demand is seen only on the day of Haritalika, i.e., a prior day of the arrival of Lord Ganesha. Vendors are mainly the residents in the nearby villages who collect the plants from surrounding areas and sell them personally. Fruits of Areca catechu, Trichosanthes tricuspidata and blooming twigs of Impatiens rosea, Mussaenda glabrata and Senecio bombayensis were commonly sold in the local market (Fig 7).

The retail price of a set of plants was seen to vary species-wise. A set of Impatiens rosea, Mussaenda glabrata and Senecio bombayensis was sold at a rate of Rs. 10-12. Fruits of Trichosanthes tricuspidata were sold based on size. Bigger-sized fruit (approx. 6-8 cm in diameter) was priced at Rs. 10/fruit, and a pair of smaller-sized fruits (approx. 3-5 cm in diameter) was observed to be sold for Rs. 10. Notably, Utricularia reticulata was not found anywhere in the market. Celastrus paniculatus was hardly seen with one or two retailers in very fewer quantities. In Ambolgad, Celastrus paniculatus and Trichosanthes tricuspidata were purchased from the local market in village Nate as they are not found on the local plateau.

Discussion

Ganesh festival is celebrated with families and social gatherings through daily prayers, vrata (fasting), and offerings. Matvi is a common practice at the local level in the Konkan and Goa regions. According to the literature review, a single research paper by Datar et al. (2011) has reported 18 species used in Bhagwan Mahaveer National Park in Goa. Ten species were cultivated, and 8 were wild. An ethnobotanical study conducted in Goa surveyed 104 species that are published in the form of e-book (Bhave & Palsarkar 2005). It has given 6 categories of plants such as cultivated, imported, wild edible, wild inedible, wild medicinal, and ornamental. Besides these, local as well as na-
tional level newspapers have published articles on this peculiar tradition and about competitions held. Nonetheless, critical study on aspects like socio-culture, economy, and ecology has not yet been carried out, even though it is a widespread practice. The present exploratory study highlighted the plants used, local trade, and perception of people in villages from Rajapur tehsil of Ratnagiri district.

The coastal plains of India are rich in biodiversity and also in various nature-related traditions (Jaiswal 2018). At present, the tradition of matvi is most vibrant in Goa, while it is comparatively limited in the Konkan region except Sindhudurg. In Karnataka State, parts of Belgaum and Karwar used to have this concept of decoration, but people don’t practice it much. Traditionally, matvi featured flowers and fruits found in the wild. But over a while and with changing lifestyles, it seems to be vanishing and, at the same time altering.

On Bhadrapada Chaturthi, nature is rejuvenating. Thus, this occasion is celebrated with newly harvested natural elements. This could be to express one’s gratitude towards the deities or nature spirits responsible for vegetative wealth, local biodiversity, and favourable weather conditions during the harvest season. Therefore, the harvest rituals and ceremonies focused more on pleasing and seeking blessings from the deities, such as offering the best of the first fruits of one’s laborious work to God (Kuriakose and Soreng 2020). Thus, Lord Ganesha could be the embodiment of these, ultimately balancing a harmonious relationship between humans and the environment (Bhave & Palsarkar 2005). Overall, it symbolizes the diversity of nature (Datar et al., 2011). In this short study, none of the respondents or key informants could offer any explanation on why this tradition started and how it is linked to the other ritual uses of plants in this period.

Within the study area, this tradition was followed in its original form (that is, the use of natural materials) mainly in the villages which are in the vicinity of lateritic plateaus and forest patches. The reason could be easy access to the plant resources in these landscape elements. Households in the urban and peri-urban regions in the study area were replacing readily available fruits and flowers with plastic replicas. The agents related to this cultural change could be the younger generation residing in metropolitan areas who come to their native places with fascinating decor ideas to adorn Lord Ganesha and are not connected anymore with the traditional ecological knowledge about matvi. Geographical and historical aspects of this tradition, its origin, spread with local cultures, and apparent loss merits a separate study.

All the plant species mentioned in Table 1 and previous studies have cultural, religious, economic, medicinal, and ornamental use values as reported in ethnobotanical literature. But their decorative or aesthetic values seem to be considered in the matvi tradition only. The sale of some of these species in the market and associated prices indicate two aspects, one economical price of the natural resources to some members of the community and the possibility of exploitation of wild resources in the future. Until now, few newspaper articles have mentioned the economic aspects of matvi in Goa and Sindhudurga, which have characteristic ‘matoli’ markets at a larger scale. Also, personal communication with naturalists mentioned state-level matoli competitions conducted during the festival, for which the prizes ranged from Rs 5000 up to Rs 25000. Notably, the highest number of matoli items (flowers and fruits) increases by up to 300 species in some cases. These wild plants are brought from nearby forests in Sindhudurg (Maharashtra), Khanapur, Supa, Dandeli, Karwar, and Ankola from Karnataka and are further exported with truckloads to lucrative markets in Goa (Kamat 2018). All these points to reckless plunder, unchecked, uncontrolled harvest, and trade of these natural resources, which are major worrying aspects of the tradition.

In our study area, such massive markets are not observed, and the trade is limited to a few resident sellers. The prices are comparatively less, between Rs. 10-30. It is unclear how much of the wild collection reaches the market and if it is sustainable. It will be a great addition to the study by exploring further cost-value analysis and the availability of resources on a larger geographical scale.

Comprehensive exploration is essential regarding various facets of matvi, such as socio-economic linkages and historical and anthropological dimensions. Aspects such as where did this tradition come from? When has it started? Is it related to God’s reverence, or is it simply for aesthetic purposes? are Haritalika and Gauri’s veneration linked with matvi, or is it different? Is it related to the caste system in which most of the farmer community follows this tradition? What is the case of other communities?

However, this practice and the plants are both facing threats. As per natives, the availability of Utricularia reticulata, Celastrus paniculatus and Gloriosa superba has reduced to worrying levels. Observations of local experts suggest that habitat shrinkage, clear
ing of vegetation, excessive use of pesticides, and fire are potential threats to these plant species. These observations of the local experts can be checked by designing scientific studies specifically to understand the causes of population reduction for species used in Matvi. Although it is an indigenous practice that strengthens the human-plant relationship, over-exploitation of endemic and rare species should be avoided. News articles such as Kamat (2018) indicate that indigenous and religious tradition leads to the overexploitation of plants from the wild. Conservation scientists will have to face the dilemma between the conservation of tradition as well as natural resources. To avoid this, it is necessary to effectuate awareness among people by conveying to them not to harvest plants in larger quantities or by suggesting alternatives or framing new ecological ethics to be followed by all worshippers. The sustainable practice of matvi is possible if the harvesting of natural material is limited to easily available, abundant, cultivable, and commonly found flowers and fruits which are not threatened. If matvi decorations are made from a sustainably sourced natural material, they have the potential to reduce the use of industrial products like plastics which will eventually lead to the generation of non-biodegradable waste. The dual purpose of reducing waste and ensuring sustainability for the tradition can be achieved through the sensitization of local community members. It is possible that the community if made aware of potential threats to nature, can make an informed decision to regulate commercial collection from the wild and promote the use of cultivated produce instead. Else, the cultivation of wildflowers can also be tried locally. Sustainable display and utilization, regulation of commercialization, and awareness among future generations can be the protective measures for these wild plants, which ultimately protect human-nature interconnectedness.

References

- पाटे पं. (2014). पश्चिम भारतीय खंडाचै जानार्या उत्तर आणि अर्थ, समाज व बीतभांग पत्रिका, २२३, pp. 18-27.

Annexure 1
1. Is there any tradition related to wildflowers in the area?
2. What are the different names for it?
3. Is it especially for any specific festival?
4. Which plants are used for Matvi?
5. Where are they procured from?
6. What is their status in local markets and landscape?
7. Are these plants easily available?
8. Is there any change in the availability and abundance of the plants? Which plants?
9. If there is a change, then what are the reasons?