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Role of exotic sacred plants in Bioculture of Khandesh region of Maharashtra (India)

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Abstract
Khandesh is comprised of three districts *viz*., Jalgaon, Dhule and Nandurbar and lies in the North-Western part of Maharashtra state (India). This region inhabited by people various religions, apart from native tribal population. All communities have their own culture and belief systems and have faith in their gods and goddesses. They lead religious life through worships, festival, rites and rituals.
Ethnobotanical inventories were extended on religious, sacred places and temples. Informants were interviewed to have traditional knowledge and usages. The data accrued was verified during subsequent visits.
The present authors documented 55 especially exotic plant species belonging 53 genera and 32 angiospermic families. Majority of them are found under cultivation (45 species), whereas 08 species are wild and 02 species both as wild and cultigens. The literary survey of these exotic taxa revealed their nativity or origin from foreign lands. Maximum species (25) are American, which is then followed numerically as: African (08 species), Europe (04 species) and Australian (02 species). Other countries or region such as Java, Myanmar, China, Indonesia, West Indies and Mediterranean regions are reported by one species each. All these are being conserved since they have been appropriated by native people for various religious worships, ceremonies and have deep faith in them. Occurrence of some exotics in ancient period is evidenced by archaeobotanical studies and mythology.
All these human sentiments are indicative of their role in local biodiversity conservation and bioculture of Khandesh regions. Khandesh region is thus a land of celebrations, worships and religious festivals interwoven with local biodiversity. An attempt has been made for appropriation of exotic species to Indian deities. Similar studies are still needed to know bioculture and Indian heritage. An cultural dimension relating to biodiversity should be integrated with decision making for appropriate conservation strategies. Such investigations need a scientific and prudent approach for the well-being of mankind.

Keywords: exotic sacred plants, Bioculture, Khandesh, India

Introduction
Several plant species are intimately linked with religious and some ancient traditions in India. The cultural attributes have influence on conservation of biodiversity. The subject of Ethnobotany is few decades old. Biodiversity is exploited traditionally for material uses and find wide space in economy. Most of Indian ethnobotanical researches were/are directed on this line.
The investigations connecting biodiversity and bioculture are, however, limited. Sacred groves are sanctified forest regions protected by the strength of religious beliefs as abodes of deities. The sacred groves *viz.*, Kanagad-kava and Kuvumkara in Kozhikode district of Kerala state (India) are studied from the standpoint of biodiversity conservation. These authors highlighted 20 species under 20 genera and 14 families of angiosperms for their religious potentialities and role worship of local deities. They pinpointed a need to conserve these-grove as these are changing due to erosion of cultural practices and modernization (Chaithra & Thomas 2017) [5]. Big temples in Cuddalore district of Puducherry region (Tamil Nadu: India) are maintained by the authorities of these temples. Sthalavriksha is a natural tree found in these temple sites before construction of the temple. Most temple myths and histories refer to a prime deity that was first unearthed or found under the tree. A total of 06 plant species belonging to 06 families were studied. Interestingly, these are used to treat 30 different diseases. Leaves was found most useful. The authors also pointed out IUCN threatened categories as: LC (least concerned) one, V (vulnerable) one and EN (endangered) two. The authors provided a significant ethnobotanical information of these sacred sthalavrikshas (Sivalingam, Rajendran & Anbarasan 2016) [36]. Investigation on sthalavrikshas in Tamil Nadu is also carried out (Gunasekaran & Balasubramanian 2012) [13]. These authors studied 1165 ancient temples and revealed 112 plant species conserved. Sacred groves of Bundelkhand region of Madhya Pradesh state in India was investigated. These authors studied 13 sacred groves and revealed medicinal importance of 13 genera belonging to 13 angiospermic families. They also mentioned myths associated with each plant species, apart from disease treated, part used and medicinal preparations (Sahu, Kumari, Sao, Singh & Pandey 2013) [29].
The deities and festivals associated with the various plants of the Indo-Gangetic plain highlighted for local utilities and myths, beliefs and faith interwoven them. The authors opined that traditional worshipping has protected nine plant species with tremendous medicinal value (Pandey & Pandey 2016) [22]. Baitadi, Dadeldhura and Darchula districts of western Nepal was investigated for medicinal plants, their use patterns and availability, especially in the lower Kailash sacred landscape (Nepal). The authors revealed total 160

medicinal and 75 non-medicinal plant-uses from 44 plant species. They commented on socio-economy, culture and environment in view of conservation of plants. The authors opined that the patterns can be better understood when geographical, cultural, historical, and environmental factors are considerd (Kunwar *et al.* 2009) [18]. With the rapid expansion of free market economies and the global breakdown of cultural and trade barriers, attention is sought to the uncertainties that face cultures in China. (Xu *et al.* 2005) [38]. These authors opined that indigenous knowledge places a high value on protecting forests and landscapes while preserving biodiversity. They further stated that these values are maintained through religious beliefs, hunting taboos, and the protection of sacred sites.

Although India has rich cultural diversity inclusive of vast rural populations and 550 ethnic groups, hardly any authors have written on the knowledge and perceptions of the local folks. Ethnographers also have not observed closely or analysed the variations in perceptions of the folk (Jain, 2001). This resume indicated that biocultural investigations are far from satisfaction (Pawar & Patil 2010, Ghate 1998) [26, 12]. This has been reiterated (Jain & Kapoor 2007) [7]. There are very few attempts to study bioculture and its ties with economy and ecology to date. It is, therefore, thought worthwhile to extend observations on sacred plants particularly growing in temple and other holy places in Khandesh region of Maharashtra. This region has remained still underexplored for the role of 'Divine Botany'. Faith, beliefs, worships of deities, religious festivals, rites and rituals in relation to biodiversity in this part of Maharashtra are common. The people of Khandesh, as the other Indians, do not consider nature and culture of separate domains. Both are integral part of their lifestyle. The present authors, therefore, inventorised on this approach. This paper particularly emphasizes the role of exotic plants in bioculture of Khandesh region. The results of our study are presented in the following.

Materials and Methods

Study Area

The present authors extended ethnobotanical observations on the floral elements particularly cultivated or found in religious spaces and temples of various deities in Khandesh region comprising Jalgaon, Dhule and Nandurbar districts of the state of Maharashtra (India). Ethnobotanical inventory was conducted during 2013 to 2017 years.

Research design

Enquiries were made from trustees and worshipers of such socio-religious spaces, worships and those who were intimately connected with them. The useful plants, their parts, deity worshipped, faith or belief prevailing in the region, legends, vernacular names of plants etc. were recorded carefully during interviews and actual visits. The plants species are determined using relevant state, regional and districts floras (Sharma *et al.* 1996; Singh *et al*. 2000, 2001; Cooke 1958, Naik 1998, Patil 2003, Kshirsagar & Patil 2008) [31, 17, 8, 20, 17]. The data adduced has been provided in the tabular form (Table-1) Nativity of these exotic plant species is also provided consulting relevant literature.

Results

Floristic analysis and utilities

The present authors during their botanization visited religious places, temples and socio-religious ceremonies, festivals and accrued data about biodiversity elements intricately interwoven with them. These are the places and events that serve as a bridge which can connect nature with systems of culture. Table-I shows connection between biological and cultural diversity. As many as 55 species pertaining to 53 genera and 32 angiospermic families. Of these, the monocotyledones shared only 09 species belonging 08 genera and 02 families. It is clear that the dicotyledonous plants contributed a major segment of biodiversity in the bioculture of the people of Khandesh. These taxa can be categorised by their habits as: shrubs (21), herbs (16), trees (10), climbers and geophytes (05 each) and lianas (02). The figures in parenthesis denote number of species of these categories. Various parts of these taxa are employed in various religious occasions associated with faith and beliefs systems Table-I). Major's share is played by their flowers (13 species), fruits (11 species), seeds (08 species), leaves (06 species) and roots (03 species). All are terrestrial plants. It is to be noted that out of 55 species, 45 species are found under cultivation. Rest others are either wild (08 species) or both as wild and cultigens (02 species).

Indian contacts

India has had many contacts being a home of various religions and a biodiversity-rich country. Human communication because of foreign rulers and trade, different plant species, deliberately or negligently, have been brought on Indian soil since ancient time. Human migration and plant invasion had therefore gone therefore hand-in-hand in the Indian subcontinent.

Nativity of taxa

The origins of the 55 exotic plant species are provided in the Table-1. It is notable that American continent (incl. Brazil) is although a distant geographical region contributed maximum number of species (25 species), which is then followed numerically by African countries (08 species), Europe (04 species), Australia (02 species) and other regions or countries *viz*., Java, Myanmar, China, Japan, Indonesia West Indies and Mediterranean region are represented by a single exotic species each. Out of total 56 species, 10 species run exclusively wild in Khandesh region. All others are being cultivated for various human needs like food, medicine, miscellaneous purposes and ornamental in sacred courtyards.

Table 1: Role of Exotic Sacred Plants in Bioculture of Khandesh Region of Maharashtra (India)

Sr. No.	Plant Name	Family & Vernacular Name	Nativity	Proposes & Parts Used
1.	*Abelmoschus esculentus* (L.) Moench.	Malvaceae Bhendi	Africa & Asia (Exc. India) Naqshi *et.al.*1988	Used an offering to goddess Mahalakshmi
2.	*Adansonia digitata*	Bombacaceae	Tropical Africa	Believed that the tree is having the power to fulfil one's

	L.	Gorakh chinch	Singh & Karthikeyan 2000	wishes and hence called as Kalpavruksh
3.	*Albizia lebbeck* (L.) Willd.	Mimosaceae Shirish	Pan-tropical Africa and Tropical Asia Bhandari,1978	Inflorescence used for worship of local deity Gramdevta by Bhil tribe
4.	*Allium cepa* L.	Liliaceae Kanda	Western Asia Patil, 2003	▪ Bulbs thought preventive for evil eyes. ▪ Jain and some Hindu communities avoid its consumption during four holy months called Chaturmas
5.	*Allium sativum* L.	Liliaceae Lasun	Europe Patil, 2003	▪ Jain and some Hindu people and also some other tribes prohibit its consumption during four holy months called 'Chaturmas' ▪ Also used in black magic by tribals
6.	*Aloe vera* L.	Liliaceae Korphad	North America Patil, 2003	In many houses of Nandurbar district the small twigs hanged on the roof of house. Believe that its ever greenness enhances the healthy environment of the house and bring prosperity
7.	*Amaranthus spinosus* L.	Amaranthaceae Kate-math	America	Grains used in the worship of Rhishipanchami by Hindus
8.	*Annona reticulata* L.	Annonaceae Ramphal	Tropical America Patil, 2003	Goddess Laxmi worshipped on the day of Laxmipujan. Fruit of this tree are offered to the goddess
9.	*Anethum graveolens* L.	Apiaceaae Balant shepu	Europe Patil, 2003	Used as the food offering to goddess Mahalaxmi
10.	*Annona squamosa* L.	Annonaceae Sitaphal	Tropical America Singh & Kartikeyan, 2000	▪ Fruits used in the worship of goddess Parvati during Hartalika Pooja ▪ Fruits used in worship of goddess Laxmi during Dipawali for Laxmipujan
11.	*Argemone mexicana* L.	Papaveraceae Pivla Dhotra	Mexico Ugemuge, 1986	Fruit used for the worship of god Mahadev
12.	*Benincasa hispida* (Thunb.) Cogn.	Cucurbitaceae Kohla	Java Ugemuge, 1986; Patil, 1995	Fruit used as a symbol of Devil in Navratri, and cut it at last day Navami after the Havan of Navratri as the end of the Devil
13.	*Borassus flabellifer* L.	Arecaceae	Tropical Africa Chandra Sekar, 2012	Planted on various sacred places, as ornamental tree in temple gardens
14.	*Bougainvillea spectabilis* Willd.	Nyctaginaceae Boganvel	Brazil Bailey, 1949	Planted near most temples for ornamental purpose
15.	*Caesalpinia pulcherrima* (L.) Sw.	Papilionaceae Puraiful	South America Sing & Kartikeyan, 2000	Planted at many sacred places
16.	*Canna indica* L.	Cannaceae Kardali	Tropical America Yadav & Sardesai, 2002	Flowers used in worship of gods and goddesses
17.	*Carica papaya* L.	Caricaceae Papai	Tropical America Patil, 2003	Fruit used in the worship during engagement for marriages
18.	*Cascabella thevetia* (L.) Lippold.	Apocynaceae Pivli Kanher	Tropical America & West Indies Patil, 2003; Gaikwad & Garad, 2015	Flower used in various worships in many temples
19.	*Cassia occidentalis* L.	Caesalpiniaceae Dukkar sheng; Ran-takla	South America Chandra Sekar, 2012	Found at Patanadevi, Padmalaya and Manudevi sacred area as a common weed
20.	*Cassia tora* L.	Caesalpiniaceae Takla; Tarota; Powadya	South America Chandra Sekar, 2012	Tribal communities believe that the white spots on the leaves death of snakes in past, so before they are going for sowing the seeds in their farm, first they perform puja of these leaves for the remembrance of Nagdevta and afterwards they start there agricultural work
21.	*Catharanthus roseus* (L.) G.Don	Apocynaceae Sadafuli	West Indies Patil, 2003	Planted generally near to temples as an ornamental
22.	*Cicer arietinum* L.	Papilionaceae Harbhara	South Europe Patil, 1990	Food prepared from seeds used as offering to goddess during Mangala Guar
23.	*Citrullus lanatus* (Thunb.) Matsura & Nakai	Cucurbitaceae Tarbuj	Tropical Africa Shetty & Singh, 1987	A festival of Akhaji or Akshay Trutiya celebrated remembering forefathers by Hindus. A small earthen pot is filled with water and fruit of this species kept on its mouth collar and then worshipped.
24.	*Clitoria ternatea* L.	Papilionaceae Gokarna	Tropical America Purseglove, 1968	Flower used in the worship of Lord Ganesha and Lord Mahadeva
25.	*Cocos nucifera* L.	Arecaceae Naral	Cocos Islands and North Andamans (But debatable)	▪ Coconut the most auspicious fruit in Hindu religion used in almost every worship, rites, rituals, ceremonies, etc. ▪ For the success of any work or mission, a coconut broken in front of god or goddess, and thought

				auspicious. ▪ Gulabai, a local deity especially of unmarried girls in Khandesh worshiped by using coconut fruit on a water pot and decorated with legumes, rice and areca nuts. ▪ Asara, a local deity generally observed near water reservoir, rivers and rivulets. Hair of children presented to her after worshiping Asara with coconut, turmeric, dates and some local food preparations. This act locally called 'Javul'
26.	*Chrysanthemum indicum* L.	Asteraceae Shevanti	China and Japan Naik, 1998	Flowers used in worshiping Mangalagauri and also in Navaratri festival by Hindus
27.	*Datura metel* L.	Solanaceae Kala dhotra	Tropical America Chandra Sekar, 2012	Flowers and thorny fruits used in the worship of Lord Mahadev at Mahashivrati and Hartalika festivals
28.	*Daucus carota* L.	Apiaceae Gajar	Europe, North Africa Shetty & Singh, 1987	Sweetmeat prepared from carrot root offered to gods
29.	*Delonix regia* (Boj. ex Hook.) Raf.	Caesalpiniaceae Gulmohar	Madagascar Baileye, 1949.	Planted in the most of the sacred places and along roadside as an ornamental and shade tree
30.	*Euphorbia hirta* L.	Euphorbiaceae Dudhi	Tropical America Chandra Sekar, 2012	Plant found at many sacred places
31.	*Eleusine coracana* (Retz.) P. Beauv.	Poaceae Nagli	Tropical Africa Gaikwad & Garad, 2015	Dongaryadev, a Pawra deity. If this crop (Nagali) production is better, then considered as a symbol that their god's happiness with the people. Dongaryadev festival celebrated at the time of Diwali festival
32.	*Hibiscus rosa-sinensis* L.	Malvaceae Jasvand	China Patil, 2003	Flowers offered to lord Ganesha
33.	*Ixora coccinia* L.	Rubiaceae Bokadi	China Patil, 2003	Flowers used mostly for decorative purpose or making for the welcome bouquet
34.	*Jatropha curcas* L.	Euphorbiaceae Moghli errand	Tropical America Patil, 2003	Plant found many sacred places
35.	*Lantana camara* L.	Verbenaceae Ghaneri, Gangubai	Tropical America Bailye, 1949	Plant found at many sacred places
36.	*Lawsonia inermis* L.	Lythraceae Kadu mendi; Mehandi	Middle East Gaikwad & Garad, 2015	Mehandi having auspicious role in Khandesh region as in Indian cultural life. Leaf paste applied in design on hand palms and legs as a dye. Practiced auspicious in ceremonies and festivals
37.	*Martynia annua* L.	Martyniaceae Winchu.	Tropical America, Chandra Sehar, 2012	Bhil people believed that the fruits if placed on the house roof they prevent the evil spirit
38.	*Melia azedarach* L.	Meliaceae Bakana neem	Asia (Excl.India) Ara *et al*., 1995	Plant found at many sacred places
39.	*Mirabilis jalapa* L.	Nyctaginaceae Gulbakshi	South America Patil, 2003	Flowers used for the decoration purposes on some auspicious occasions
40.	*Nerium indicum* Mill.	Apocynaceae Kanher	Mediterranean region, Purseglove, 1968	Flowers used in the worship 'Kanbai' a local deity, especially in Khandesh region of Maharashtra. Worship is started on Tuesday or Friday. The goddess thought as coconut (a symbol of the sun) on Sunday. The plant 'Kanher' also regarded a symbol of Lord Krishna
41.	*Opuntia elatior* Mill.	Cactaceae Nivdung	South America Chandra Sekar, 2012	Found as impenetrable hedge around the gardens and temples
42.	*Passiflora edulis* Sims.	Passifloraceae Krishna Kamal	Brazil, Bailey, 1949	Flowers are used on the day of Janmashtami (Birthday of Lord Krishna) by Hindus
43.	*Pedalium murex* L.	Pedaliaceae Mothi-Gokhru, Ubha Gokharu	Tropical America Chandra Sekar, 2012	Found at many sacred places and in temple area
44.	*Pennisetum americanum* L.	Poaceae Bajara, Bajari	Central Tropical America, Naik, 1998.	A bullock festival called 'Pola' celebrated. Worshipped on this day and are not employed for any physical work. Earthen made bullock idols placed on the grains spread on a carpet and also worshipped
45.	*Phyllanthus acidus* (L.) K. Skeels.	Euphorbiaceae Rai Awla	Malaya Islands and Madagascar, Yadav & Sardesai, 2002	▪ Fruits used in the worship of Yahamogimata, a tribal deity ▪ Fruits also used in the worship of Durgamata in Navaratri festival
46.	*Plumeria rubra L.*	Apocynaceae Chapha	Tropical America Yadav & Sardesai, 2002	Leaves and flowers used in worship of Lord Shiva
47.	*Psidium guajava* L.	Myrtaceae Peru	Tropical America Patil, 2003	Fruit used in warship of Lord Ganesha
48.	*Punica granatum* L.	Punicaceae Dalimb	Afghanistan and Persia Patil, 2003	Fruit used in worship of Lord Ganesha and Satyanarayana
49.	*Quisqualis indica* L.	Combretaceae	Tropical Asia	Found near the temples.

		Madhumalti	Yadav & Sardesai, 2002	
50.	*Raphanus sativus* L.	Brassicaceae Mula	Europe & Temperate Asia Patil, 1995	Vegetable prepared from the leaves used in food offering to goddess Mahalaxmi in the Mahalaxmi festival
51.	*Ricinus communis* L.	Euphorbiaceae Erand	Tropical Africa Yadav & Sardesai, 2002	Plant used in Holi festival as the symbol of Holika. In tribal community, Holi is celebrated for many days. In this festival a branch of the tree placed at the middle of the common place. Fuel wood arranged around it. The head person of the tribal community worships and ignites it and all his followers dance around it
52.	*Rosa damascena* Mill.	Rosaceae Gulab	East Asia Patil, 2003	In the Muslim Dargah and Majar, the flowers used for the making 'Chadar' offering to their said.
53.	*Sesbania grandiflora* (L.) Poir.	Papilionaceae Hadga	Indonesia Shetty & Singh, 1987	It is found near the temple area
54.	*Tricticum aestivum* L.	Poaceae Gahu	Fertile Crescent Singh & Nigam, 2017	In the month Shravana (according to Hindu calendar), the unmarried girls of Vanjara (Banjara) tribe celebrate Tij festival, raise seedlings of wheat in a pot and donate to the river
55.	*Zea mays* L.	Poaceae Maka, Makki, Makai	Central America Purseglove, 1972	Tribals worship Waghdev and expect that tigers will not trouble the domestic animals. This celebration carried in jungles. One of the men decorated as a tiger. The tiger roars the boundary of a village and collects cobs of maize and other fruits and then cobs consumed

N.B.: *: indicate wild status.
**: indicate wild and cultivated status.

Discussion

The plants or botanicals used as pious offerings to certain deities appear to have gained significance due to socio-religious faith and mythological background in the concerned human societies. The present authors could gather rationale for some of them mentioned in the present account. For example: (i) Red colour is thought by Hindus deer to Lord Ganesha. Red flowers of *Hibiscus rosa-sinensis* L. are, therefore, offered to please him. (ii) This also appeared about the case of *Punica granatum* L. Its red coloured fruits are offered to Lord Ganesha. This fact is also reported earlier (Anonymous, 1988) [1]. (iii) A myth prevails in Hindu people about 'Ocean Churning' (Samudra manthan). Poison emerged during 'ocean churning' by gods and demons. It is said to be drunk by Lord Mahadeva (Lord Shankara). The poisonous fruits of *Datura metel* L. are hence offered to him. Also, its flowers are blue-purple. When Lord Mahadeva consumed the poison emerged after ocean churning, he was turned blue, particularly his throat. Hence, he is also called by Hindus 'Neelkanth' (Neel means blue and kantha means throat). This flower is also depicted in headdress of Lord Shankara or Shiva at the temple on stone sculpture (10-11th century) *viz*., Uma Maheshwara, Nalambas, Hemavati, Anantpur District (Andhra Pradesh, India) (Geeta & Waleed 2007) [11]. (iv) Jain and some Hindus avoid consumption of garlic (*Allium sativum* L.) and onions (*Allium cepa* L.) especially during 'chaturmas' period (Chatur-means four; mas means month) which falls during rainy season. These edibles are thought aphrodisiac and their consumption is avoided during these sacred months. (v) Green colour is pleasant and have cooling effect on eyes. *Aloe vera* L. remains green throughout its life and it is also perennial. It is hence hanged on roof of houses. (iv) Kalpavruksh (Kalpa means imagined, idealised; vruksha means trees). The tree *viz*., *Adansonia digitata* L. is useful for various purposes and hence called Kalpavruksha. This concept is also applied in case of coconut tree (*Cocos nucifera* L.). Coconut is called 'Kalptaru' (kalpa-imagined or idealised; taru-tree) (Sane & Ghate, 2006) [12]. (vii) In ancient past, people sacrificed some animals as a prey to some deities. This practice is, in modern period, avoided. Animals are now substituted by the fruit of *Benincasa hispida* (Thunb.). Cogn. (viii) Crop of *Eleusine coracana* (Retz.) P. Beauv is common source of food grain particularly in tribal region. These people offer it to their deity Dongaryadev as god's gift. (ix) Red colour is conceived auspicious. The hand-palms and foot-sole are redened by a dye obtained from the leaves of *Lawsonia inermis* L. in Khandesh region. This was also reported earlier (Lancaster 1965). There is hardly any occasion on which coconut do not find place in Hindu religion. It is a symbol of welcome and also offered to Saraswati, a goddess of knowledge, in Hindus (Chaudhury & Pal 1981). *Zea mays* L. (Maize) is a native of American continent. It has diffused in many geographical areas. In India, its cob is found depicted in one left hand of Mohini, a female form of 8-armed dancing Lord Vishnu (a Hindu God), at the Lakshmi Narsimha temple, Nuggehalli, Karnataka (India). This temple is thought built in 12-13th century (Gupta, 1996). Yellow colour is thought deer to Lord Vishnu and hence yellow cobs are appropriated to him. This hard evidence is indicative for how for long this crop species was common and intercalated in Indian culture.

Plants have played a vital role in material and spiritual life of mankind since long past. The various religious rites and socio-cultural activities are a mode of conservation of natural wealth. The cultural and religious aspects are more significant to save our biodiversity heritage than the enactments passed by the governments from time to time. This is because the sentiments conserving local plants comes from within. The local people react and behave in echo-friendly ways and the nature is thought a part of their life. Associations of mankind with bioresources, whether ritualistic, symbolic or religious, are deeply rooted in cultures. Studies on this line are desired to save Indian bioculture *vis-a-vis* native biodiversity. Conservation of bioresources has been an integral part of human societies worldwide. India is although one of the important

biodiversity centers, it has suffered on almost unabated devastation of its biological heritage. Whatever has remained to date is because of a host of conservation-oriented religious traditions, beliefs, faith and socio-cultural festivals, worships rituals, etc. People of Khandesh region followed the same path in leading their life.

Conclusions

The current investigation confirmed that the informants are well acknowledged with identity of plant species in this environment and also the traditional utilities. The younger generation, however, are less interested in such knowledge. It is, therefore, a dire need to preserve this treasure-trove of knowledge which in future will aid in plant conservation.

Also, this investigation has shown that integration of new scientific knowledge and traditional knowledge can yield greater results in terms of sustainable utilization and management of the exotic flora which is now an integral part of local biodiversity. Maintenance of plant species in religious areas are also helpful for recreational and promotional of mental health from our everyday stress condition. These places improve the quality of life by preserving and utilizing the biological and cultural resources in Khandesh region. Knowledge on bioculture should be integrated with strategies for conservation in future.

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