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Taxonomical survey of indigenous medicinal plants from the base of Raigad fort, Maharashtra

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Abstract
Owing to global developments, indigenous medicinal plant knowledge must be documented, conserved, sustainably used, and developed if it is to be saved from extinction. Thus, a survey was undertaken to collect information of indigenous medicinal plants during circumambulation along with some local peoples at the base of Raigad fort. The information collected of these indigenous medicinal plants from local people. The uses of these plants for different purposes prepared questioners during survey and taken personal interview. The field work was carried out on 15 Dec 2019 and 7 Feb 2021.There are 57 species,54 genera and 31 families of different plants from the base of Raigad district was recorded. Local peoples use these plants for treating various diseases and this information they passes from generation to generation, major plant parts were used such as root, stem, bark, seeds, leaves flower and fruits to cure various disease.

Keywords: indigenous medicinal plants, raigad fort

Introduction

India is a medicinal plant varietal emporium and one of the world's richest countries in terms of medicinal plant genetic resources. Wadankar *et al*. (2011) [19] Contemporary medications can be discovered by studying indigenous medicinal herbs. You can find out about helpful medicinal plant species and how to handle and domesticate them using reliable resources of knowledge. Many synthetic medications are made using chemical compounds extracted from plants, while 25% of herbal drugs are derived from plants in the modern pharmacopoeia. Natural products have been shown to perform a critical role in the development of novel medications (Verpoorte *et al*. 2006, Colvard *et al* 2006, Cordell *et al*. 2012) [16, 1, 2] In recent times most of the researchers focus has shifted to ethno medicines owing to the important role of medicinal plants in traditional medicine. The primary health care system relies on traditional medicines for 80 percent of the population in poor nations These conventional treatments are safe, inexpensive, and cost-effective (WHO). There are 50,000 blooming plants that are utilised as medicinally in traditional medicine, accounting for 85% of all traditional medicines. Over 6000 plant species are said to have been examined in traditional, folk, and herbal medicine, with over 2500 plant species having therapeutic significance has been reported by Wadankar *et al*. (2011) [19].
Formulations based on traditional herbal mixtures and its documentation is an important part of conservation efforts. The current study recounts the traditional knowledge of indigenous medicinal uses of local peoples of Raigad fort. This work, being the first collation and identification of ethnomedicinal plants. Specifically, the objective of the present study aimed at 1) To document the indigenous plants used for medicinal purposes, ii) Plant parts utilization and conservation of biological resources.

Location: Raigad district of Konkan region is very well known for its huge Biodiversity of flora and fauna. The Raigad district in Maharashtra state lies between 17^0 53'[1] and 19^0 08'N.Latitude and 72^0 51'and 73^o 43 E. Longitude and covers an area of 719,889Sq.kms The district is bounded on the west by Arabians sea and the major sahyadrian scrap adjoining Ratrangeri district on the North by Thane district and on the south the savitri river which flows along the boundary over a stretch of 30 Kms on the South east the Satara district and on the east the Pune district.
The Raigad fort is also pilgrim center for those who know love history and pure rustic culture of Maharashtra. This fort is an exceptional marvel which has left an impression about the grand version of Hindavi Swarajya as cherished by Chhatrapati Shivaji Maharaj. This fort was built by Chhatrapati Shivaji Maharaj in 1674. This fort is located on an armed campaign by British East India company and in 1818 and then destroyed by the British. The forest is situated on its surrounding mountains. Sahyadri hills has huge pool of vast natural resources comprising of vegetational wealth and traditional knowledge of medicinal plants.

Material and Methods

The medicinal survey were conducted during the month of 15 Dec 2019 and 7 Feb. 2021 in during the time of preparation of path for pilgrims during circumambulation along with local peoples and youth club Mahad Dist Raigad. Attempts will be made in this study to select indigenous plants from base of Raigad fort and taken information local peoples. The standard method of collection of plants and preservation and maintenance of specimen in herbarium were followed (Jain. 1977) [4] (Singh *et al* (2008) [17] (Rao *et al* 1990) [14]. All collected specimens were correctly identified with Flora of Kolhapur district (Yadav *et al* 2002) [8]. All collected specimen deposited and preserve in department of Botany in S. M.College Poladpur Raigad, although a number of reports are available of medicinal plants of different districts in India (Pandey, 2002; Pandey and Rout 2006; Raut and Pandey 2007; Jain *et al* 2001) [9]. The basic goal of this study was to determine the variety of indigenous medicinal plants utilised by the local population

and to compile information on the area's historical use of medicine. In numerous places of India, ethnobotanical investigations of the same kind have been reported to document the disappearance of traditional knowledge (Rajan *et al*., 2002; Ganesan *et al*., 2004; Ignacimuthu *et al*., 2006; Sandhya *et al*., 2006;) [12, 11, 15]. The detail of Medicinal plants with their Botanical name, Family, Plants parts used are given in Table No.1

Table 1: Detail about indigenous medicinal plants scientific name family local name and plants parts used arranged in alphabetical order.

Sr. No	Scientific Name of Plant	Family	Local name	Plant parts Used
1	*Abrus precatorius.* Linn.	Fabaceae	Gunj	Leaves, seeds
2	*Acacia catechu*. (L.F.)Willd.	Mimoceae	Khair	Stem, gum
3	*Achyranthes aspera* L.	Amaranthaceae	Agadha	Whole plant
4	*Alternanthera sessilis* L	Amaranthaceae	Chubik kate	Leaves
5	*Amorphophallus campanulatus Den.*	Araceae	Suran	Rhizome
6	*Amorphophallus commutatus. Scott.*	Araceae	Shevala	Leaves
7	*Asparagus racemosus. Willd.*	Liliaceae	Shatavari	Leaves, Rhizome
8	*Artocarpus heterophyllus L.*	Moraceae	Phanas	Fruit
9	*Artocarpus lakoocha* L	Moraceae	Lalai	leaves
10	*Baccopa monnieri*. L.	Scrophulariaceae	Bhrami	leaves
11	*Bambusa arundinacea.Willd.*	Fabaceae	Bamboo	Stem, leaves
12	*Bauhinia purpurea*.L.	Casalpiniaceae	Kanchan	Roots, buds, Stem.
13	*Bombax ceiba.* L.	Bombacaceae	Kate shaver	Roots, Stem, Gum.
14	*Boswellia serrata Rox.*	Burseraceae	Salai	Gum, Leaves.
15	*Bridelia retusa. L.*	Euphorbiaceae	Asana	leaves
16	*Butea monosperma. (*Lamk.)Taub.	Fabaceae	Palas	Bark, Stem, Gum, flower.
17	*Casuarina equisetifolia.J.R.*	Casuarinaceae	Casurinia	leaves
18	*Cassia obtusifolia.* L.	Caesalpiniaceae	Tarwad	Leaves, stem, root
19	*Cassia tora* L.	Caesalpiniaceae	Tarota	Leaves, flower, root
20	*Cuscuta reflexa.*Roxb.	Cuscutaceae	Amarvel	Stem leaves.
21	*Careya arborea Roxb.*	Lecythidaceae	Kumbh	leaves
22	*Clerodendrum serratum* (L)Moon	Verbenaceae	Bharangi	leaves
23	*Clitoria ternatea* L	Fabaceae	Gokarna	Leaves fruit
24	*Colocasia esculenta.*L.	Araceae.	Alu	Leaves
25	*Delonix regia L.*	Caesalpiniaceae	Gulmohar	Seeds
26	*Dioscorea bulbifera L*	Dioscoreaceae	Dukarkand	Tubers
27	*Dillenia indica L.*	Dilleniaceae	Mota Karamal	Flower, leaves
28	*Emblica officinalis. Gaertn*	Euphorbiaceae	Amla	Leaves fruits
29	*Eclipta alba* (L) Hask	Asteraceae	Maka	Root and leaves
30	*Erythrina variegate.* L.	Fabaceae	Ran Pangara	Leaves
31	*Ficus religiosa.L.*	Moraceae	Pimpal	Leaves bark latex
32	*Ficus racemosa L.*	Moraceae	Umber	Leaves bark latex
33	*Garcinia indica (*Thou.) Chois.	Clusiaceae	Kokam	fruit
34	*Gliricidia sepium Jacq.*	Fabaceae	Gliricidia	fruit
35	*Gloriosa superb. L.*	Liliaceae	Kal lawi	Stem, leaves
36	*Holoptelea integrifolia Roxb.*	Ulmaceae	Valvi	Root, leaf, seeds
37	*Helicteres isora L.*	Sterculiaceae	Murad sheng	seeds
38	*Holarrhena antidysenterica* Sensu. Wall ex DC.	Apocynaceae	Pandhara kuda	Flowers, leaf,
39	*Jatropha curcas. L.*	Euphorbiaceae	Mogali Erand.	Whole plant
40	*Launaea procumbens L.*	Asteracece.	Patri.	Leaves
41	*Mangifera indica L.*	Anacardiaceae	Mango	Fruit
42	*Morraya koenigii. L.*	Rutaceae	Kadipatta	leaves
43	*Mucana pruriend (L.)D.C*	Fabaceae	Khaj kuhiri	Seeds
44	*Launaea procumbens L.*	Asteracece.	Patri.	Leaves
45	*Plectranthus amboinicus (*Lour) Spr. spr.	Lamiaceae	Ova	Leaves
46	*Ricinus communis.* L.	Euphorbiaceae	Erand	Root,leaf,seeds
47	*Sida acuta* Burm. F.	Malvaceae	Chikana	Roots
48	*Solanum incanum* L.	Solanaceae	Karanda	Whole plant
49	*Syzgium zelanicum* Weight.	Myrtaceae	Pitkuli	Fruit, Stem
50	*Syzgiu m rubicudum* Weight.	Myrtaceae	Landi Jambul	Fruit, Stem
51	*Terminalia paniculata.*L.	Combretaceae	Kinjal	leaves
52	*Tinospora cordifolia*. Willd. Miers	Minispermaceae	Gulvel	Whole plant
53	*Terminalia arjuna.* Roxb.	Combretaceae	Arjuna	Bark and Gum
54	*Tectona grandis* L.F.	Verbanaceae	Sag	Stem
55	*Vitex nigundo L.*	Verbanaceae	Nirghudi	Root stem and leaves
56	*Woodfordia fruticosa L.*	Lythraceae	Dhaiti	Root stem and leaves
57	*Withania somnifera L.*	Solanaceae	Ashwagandha	Root, Stem and leaves

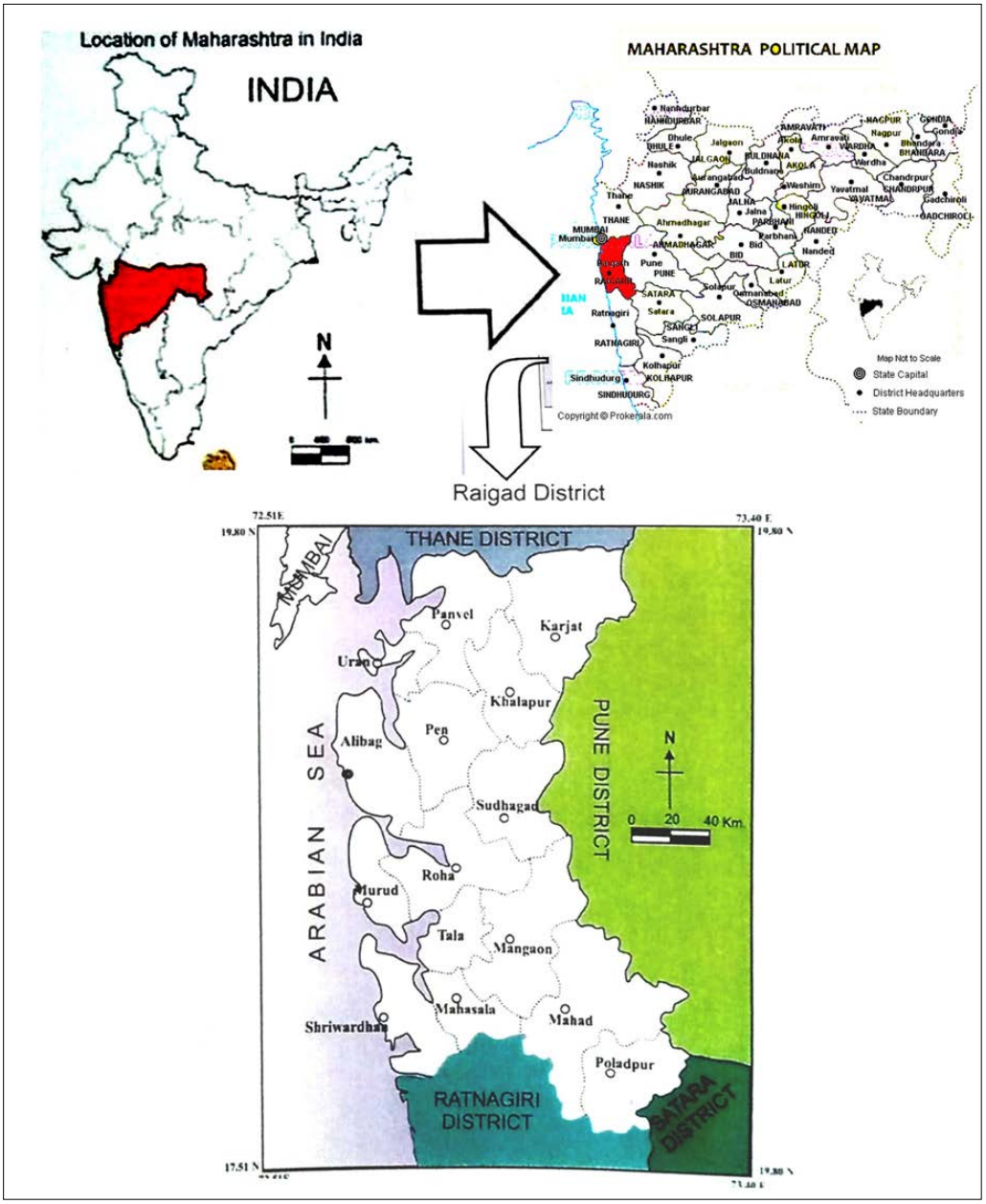

Fig 1: Location of Raigad District in Maharashtra state.

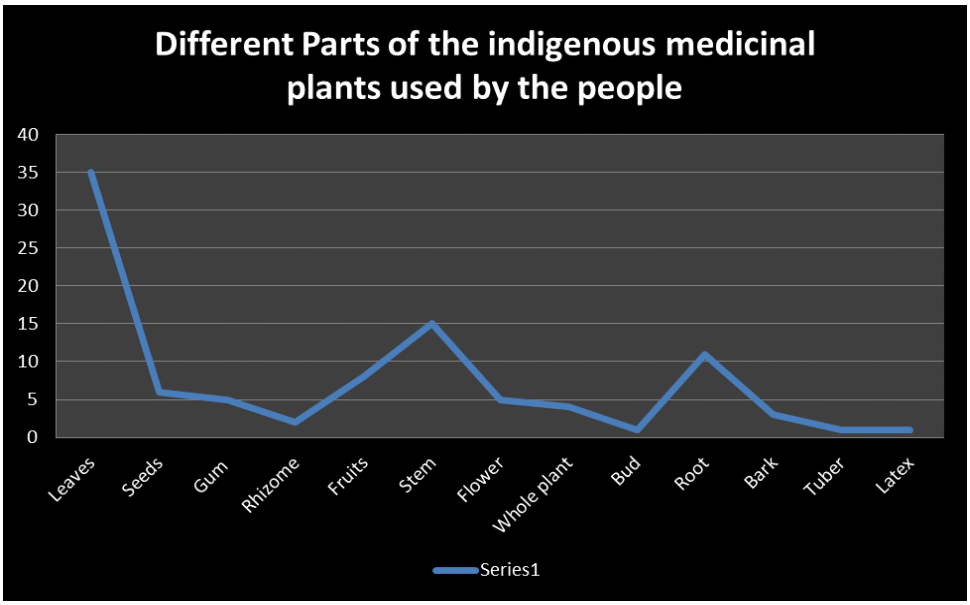

Fig 2: Different Parts of the indigenous medicinal plants used by the local people.

Results and Discussion

Native medicinal plants found around Fort's foothills are described in this study as potential cures for a variety of human maladies. As far as they knew, persons living in various parts of the research area employed various treatment modalities. It's possible that the plants were combined with others to create more potent remedies.

The Naikade *et al*. study (2014) [6]. There are 57 species, 54 genera and 31 families of different plants was recorded. There is need of systematic documentation and detailed study for the potential and availability of the plants. Figure 2, shows more amount of plant part leaves were use and lowest is latex for treatment of different disease. This is the first step taken towards the documenting treasures of indigenous knowledge, conserve natural resources which are of great values around us. The plant such as *Butea monosperma* (Lam.), *Holarrhena antidysenterica* Sensu. Wall ex DC. *Terminalia arjuna.* Roxb. *Achyranthes aspera* L. *Cassia fistula* Linn, *Gloriosa superb. L. Withania somnifera L. Mucana pruriend (L.) D.C* is used for hepatitis, jaundice, constipation, and skin and urinary problems. Fruit and leaves were the most commonly used plant parts (38%), followed by stem (15%) and roots (11 %). as well as vegetables and fruits There is an immediate necessity to guard the cultural heritage and traditional knowledge of the natives by mitigating the healing potential and biological activities of the plants using reported scientific methods to the traditional knowledge of the area is greatly affected by modernization and other factors. The potential plants of the area, which are under threat of extinction owing to deforestation and development, must also be given special care.

References

1. Colvard MD, Cordell GA, Villalobos R, Sancho G, Soejarto DD, Pestle W, *et al*. Survey of medical ethnobotanicals for dental and oral medicine conditions and pathologies. Journal of Ethnopharmacology, 2006:107:134-142.
2. Cordell GA, Colvard MD. Natural products and traditional medicine: turning on a paradigm. Journal of Natural Products,2012:75:514-525.
3. District census. Hand book and Stastical Abstract of Raigad district. Medical Ignacimuthu S, Sankara Sivaraman K, Kesavan L, Medico-ethnobotanical survey among Kanikar tribals of Mundanthurai Sanctuary. Fitoterapia,1981-2001:69:409-414.
4. Jain SK, Rao RR. Field of Herbarium today and tomorrow Publishers New Delhi, 1977.
5. Jain SK, Sunita Shrivastav. Indian Ethanobotanicallitrea. Ethanobotany,2001:13:18.
6. Naikade SM, Meshram MR. Ethno-Medicinal Plants Used For Jaundice from Konkan Region, Maharashtra, India. International Journal of Pharmaceutical Science Invention,2014:3(12):39-41.
7. Naik VN. *Marathwada samanya vanoushadi* Amrut Prakashan Aurangabad,1998
8. Yadav SR, Desai MM. Flora of Kolhapur District Shivaji University Kolhapur, First edition, 2002.
9. Pandey AK, Rout SD. Medicinal plants of similipal Biosphere Reserve. perspective of plant Biodiversity in A.P. Das B. Singh M. P. Singh Eds Dehradun,2002:681-696.
10. Pandey AK, Rout SD. Ethanobotanical uses of similipal Biosphere Reserve, Orissa Ethanobotany,2002:18:102-106.
11. Ganesan S, Suresh N, Kesavan L. Ethnomedicinal survey of lower Palani Hills of Tamil Nadu. Indian Journal of Traditional Knowledge,2004:3(3):299-304.
12. Rajan S, Sethuraman M, Mukherjee PK. Ethnobiology of the Nilgiri Hills, India. Phytotherapy Research, 2002:16:98-116.
13. Raut SD. Medicinal plants of similipal Biosphere Reserve Ph. D. Thesis Bhagalpur University Bhagalpur, 2004.
14. Rao RR, Sharma BD. A manual for herbarium collections Botanical Survey India. Brabourne road Calcutta, 1990.
15. Sandhya B, Thomas S, Isabel W, Shenbagarathai R. Ethnomedicinal plants used by the Valaiyan community of Piranmalai Hills, Tamil Nadu, India– A pilot study. African Journal of Traditional, Complementary and Alternative Medicines,2006:3(1):101-114.
16. Verpoorte R, Kim HK, Choi YH. Plant as source of medicines In: Bogers RJ, Craker L.E., Lange D., editor. Medicinal and Aromatic Plants. Netherlands: Springer, 2006, 261-273.
17. Singh HB, subramaniyam, Field manual of Herbarium Technique NISCAR (CSIR) New Delhi, 2008.
18. Singh Jasbir, Dhillon SS. Agricultural geography, Tata Mc Graw Hills Publishing Company limited, New Delhi, 1979.
19. Wadankar GD, Malode SN, Sarambekar SL. Indigenous Medicine Used for Treatment of Gynecological and other related Problems in Washim District, Maharashtra G. D. International Journal of Pharm Tech Research,2011:3(2):698-701.