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Ethnobotanical Notes from Pohara-Malkhed Reserve Forest, Amravati, Maharashtra, India

Akshay A. Onkar
Department of Botany,
Fergusson College, Pune, 411004, Maharashtra, India.

(Corresponding author: Akshay A. Onkar)
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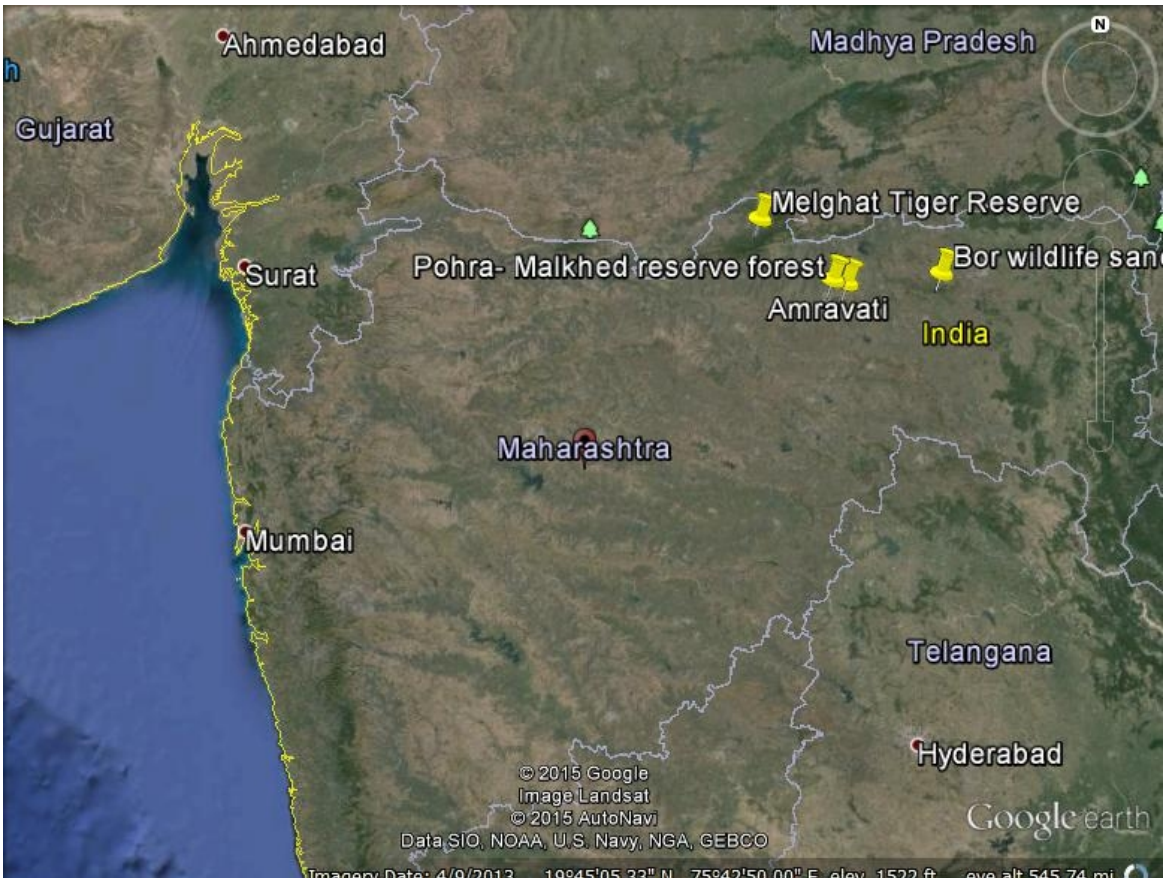
ABSTRACT: Ethnobotany plays a major role in the tribal life of Pohara-Malkhed reserve forest. During the present study period, 33 plant species belonging to 20 families have been documented out of which 28 are wild edible and 10 are medicinal. Some of the common species of the Pohara which are source of financial income of the local people are *Canthium parviflorum*, *Madhuca longifolia* and *Diospyros melanoxylon* whereas uncommon species such as *Gardenia turgida* are also utilized. Such studies provide baseline data for species with ethnobotanical value and this traditional knowledge should be documented, validated and conserved.

Key words: Ethnobotany, Wild edible, Medicinal, Pohara, traditional knowledge.

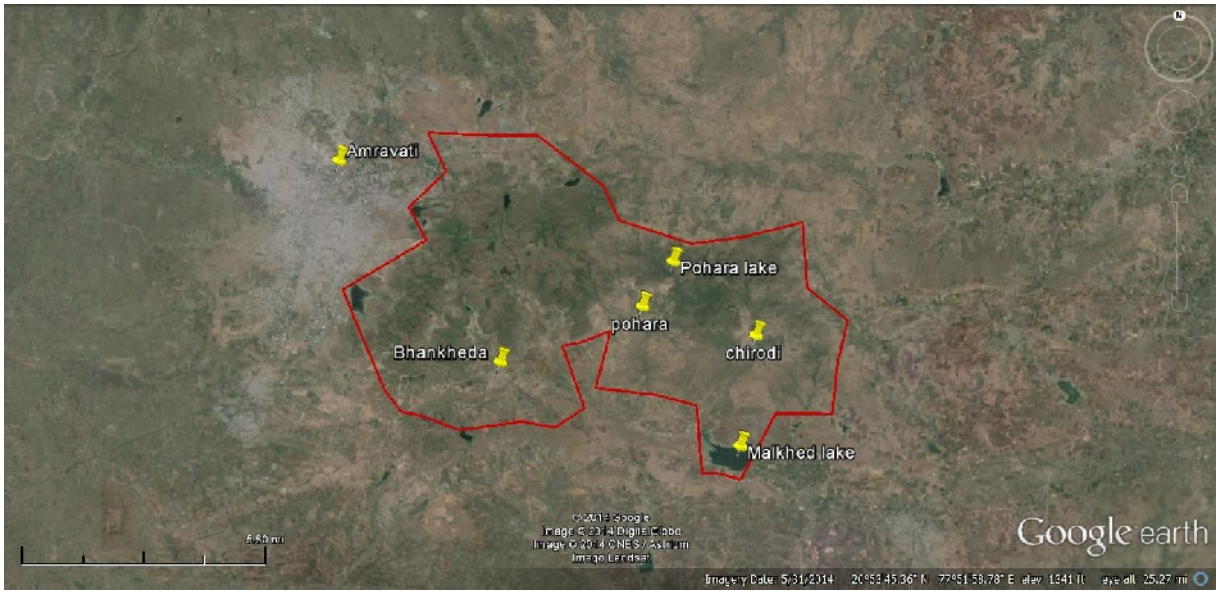
INTRODUCTION

Ethnobotany deals with the study of role of traditional knowledge of plants in tribal life **(**Vartak and Gadgil, 1980.) In India several studies on ethnobotany such as Jain *et al*.,1980, Shivkumar *et al.,* 2005., Kayang, 2007., Kumari *et al,* 2011, Deb *et al*., 2013 are available and also in the state of Maharashtra (Vartak,1959, Vartak and Gadgil,1980 and Mahadkar *et al*., 2013). There are also many researchers who studied wild edible and medicinal plants from Vidarbha region of Maharashtra (Bhogaonkar *et al*., 2010., Reddy, 2011., Dhore *et al.,* 2012, Kshirsagar, 2013., Zade *et al*., 2013, Shende *et al*., 2014). Yet, there has been no report of species with ethnobotanical value from the Pohara-Malkhed Reserve Forest in the Eastern Maharashtra. Present study thus focuses essentially on the study of wild edible species, documentation and gives information on their utilization by local people of Pohara-Malkhed Reserve Forest.

Study area. Pohara-Malkhed reserve forest is located at 20°54'9.75"N 77°53'24.31"E. The area under this work covers the region of Pohara-Malkhed reserve forest including peripheral area of Amravati city. The area consist of Chirodi, Bhankheda and Pohara villages which are part of Chandur railway taluka, Amravati, Maharashtra, India (refer maps 1 and 2). Total area of forest is about 80km^2. Forest type is southern tropical dry deciduous forest (Type 5A) as classified by Champion and Seth, 1968. Some of the common species of the region are *Tectona grandis* L.f., *Butea monosperma* (Lam.) Taub., *Terminalia arjuna* (Roxb. ex DC.) Wight & Arn., *Boswellia serrata* Roxb. ex Colebr., *Diospyros melanoxylon* Roxb., *Acacia nilotica* subsp. *indica* (Benth.) Brenan. The Melghat Tiger Reserve and Pohara are two major forests in Amravati district. The Melghat tiger reserve is the southern offshoot of Satpura range which is 100 km from Pohara.


Ahmedabad
Madhya Pradesh
Gujarat
Melghat Tiger Reserve
Surat
Pohra- Malkhed reserve forest
Bor wildlife san
Amravati
India
Maharashtra
Mumbai
Telangana
Hyderabad
© 2015 Google
Image Landsat
© 2015 AutoNavi
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Google earth

Map 1.


Amravati
Pohara lake
pohara
Bhankheda
chirodi
Malkhed lake
Google earth

Map 2.

MATERIAL AND METHODS

The present study was carried out during October 2013 to January 2015. The region was frequently visited by me. Information was collected with the help of forest workers, local people, farmers, children etc. Local villagers provided vernacular name of plants and also explained their uses. During the study period 76 informants were interviewed. The information of Ethnobotanically important plants regarding the local names of plant species, parts used, availability in natural resources, method of processing and vegetable preparation, method of collection, medicinal uses were noted down. For nomenclature The Plant List was consulted. Species were identified on field following floras such as Cooke, 1968, Patel, 1968, Singh *et al.,* 2000, Singh and Karthikeyan, 2001**,** Dhore 2002. Herbarium specimens were prepared by using the protocol of Jain and Rao, 1967 and selected specimens will be deposited at Herbarium of the Department of Botany, Fergusson College, Pune, 411004, Maharashtra, India.

RESULTS AND DISCUSSIONS

The present survey deals exclusively with first hand information of 33 wild edible species belonging to 20 families. Out of the total 33 species recorded, 10 were medicinal and 28 were wild edible and some were used as both. A detailed inventory of all the species recorded in the present work has been provided herewith. The plants have been classified into Ethnomedicinal plants and wild edible plants as follows.

Ethnomedicinal plants

1. *Andrographis paniculata* var. *glandulosa* Trimen. (V. Bhui-Neem). Fam. Acanthaceae.
Decoction of leaves is used to cure cough and fever. Leaves are also edible but test is very bitter.
2. *Semecarpus anacardium* L.f. (V. Bibba). Fam. Anacardiaceae
Fruit oil is applied to take out spines from body.
3. *Cassia hirsuta* L. (V. Dev tarota).Fam. Caesalpinaceae
Decoction of fruit is used to cure high fever and rheumatism
4. *Caesalpinia crista* L. (V. Sagargoti). Fam. Caesalpinaceae
Seed paste is mixed with ghee then used to cure diabetes and rheumatism.
5. *Combretum ovalifolium* Roxb. (V. Haldu-Vel). Fam. Combretaceae
Decoction of leaf is used to cure menstrual disorder.
6. *Ficus glomerata* Roxb. (V. Umber). Fam. Moraceae
Leaves soaked in water for overnight then used to washing hairs.
7. *Balanites roxburghii* Planch. (V. Hingan, Hinganbet). Fam. Balanitaceae
Decoction of ripe fruit used to cure cough and fever also it is used as 'soap' for washing clothes and used as fish poison.
8. *Gardenia turgida* Roxb. (V. Pheter). Fam. Rubiaceae
Ripe fruit juice is prescribed to the infertile woman also the fruit is used as 'soap' for washing clothes.
9. *Solanum indicum* var. *lividum* (Link) Bitter. (V. Raan wange). Fam. Solanaceae
Ash of fruit is mixed with edible oil then used to cure itching.
10. *Maytenus emarginata* (Willd.) Ding Hou. (V. Bharati). Celastraceae
Fresh leaves used to cure cough.

Wild edible plants:

1. *Semecarpus anacardium* L.f. (V. Bibba).Fam. Anacardiaceae
Flowers are fried on pan then used as vegetable.
2. *Boswellia serrata* Roxb. ex Colebr. (V. Salai). Fam. Burseraceae
Gum is mixed with sugar syrup, flowers are used as vegetable.
3. *Cassia fistula* L. (V. Amaltas). Fam. Caesalpinaceae
Young leaves and tender fruits are used as vegetable.
4. *Cassia hirsuta* L. (V. Dev Tarota). Fam. Caesalpinaceae
Tender leaves are used as vegetable.
5. *Bauhinia racemosa* Lam. (V. Bhosa).Fam. Caesalpinaceae
Flowers and tender pods are used as vegetable.
6. *Bauhinia purpurea* L. (V. Kachnar). Fam. Caesalpinaceae
Flowers are used as vegetable.
7. *Cassia occidentalis* L. (V. Boru). Fam. Caesalpinaceae
Flowers are used as vegetable.
8. *Anogeissus latifolia* (Roxb. ex DC.) Wall. ex Guillem. & Perr. (V. Dhawada). Fam. Combretaceae
Gum is mixed with sugar syrup.
9. *Terminalia catappa* L. (V. Jungali badam). Fam. Combretaceae
Ripe fruits are edible.
10. *Diospyros melanoxylon* Roxb. (V. Tembhru). Fam. Ebenaceae
Ripe fruits are edible and used to make pickle.

11. *Cordia dichotoma* G. Forst. (V.Gondhan). Fam. Ehretiaceae
Ripe fruits are edible.
12. *Sesbania grandiflora* (L.) Pers. (V. Hatga). Fam. Fabaceae
Flowers are used as vegetable.
13. *Flacourtia indica* (Burm.f.) Merr. (V. Kakaya). Fam. Flacourtiaceae
Ripe fruits are edible.
14. *Acacia leucophloea* (Roxb.) Willd. (V. Hiwar). Fam. Mimosaceae
Gum is mixed with sugar syrup.
15. *Acacia ferruginea* DC. (V. Pandhara khair). Fam. Mimosaceae
Gum is mixed with sugar syrup.
16. *Acacia catechu* (L.f.) Willd. (V. Kala khair).Fam. Mimosaceae
Gum is mixed with sugar syrup.
17. *Acacia arabica var. nilotica* (L.) Benth. (V. Bhabul). Fam. Mimosaceae
Gum is mixed with sugar syrup.
18. *Canthium parviflorum* Lam. (V. Kaath bor). Fam. Rubiaceae
Ripe fruits are edible.
19. *Gardenia turgida* Roxb.(V.Phetara).Fam. Rubiaceae
Tender fruits are used as vegetable.
20. *Limonia acidissima* Groff. (V. Kavath). Fam. Rutaceae
Fruits are used to make chuttney.
21. *Manilkara hexandra* (Roxb.) Dubard. (V. Khirani). Fam. Sapotaceae
Ripe fruits are edible.
22. *Madhuca longifolia* (J. Koenig ex L.) J.F. Macbr. (V. Mahua). Fam. Sapotaceae
Dried flowers are fried on pan then used as vegetable.
23. *Grewia tiliifolia* Vahl. (V. Dhaman). Fam. Tiliaceae
Ripe fruits are edible.
24. *Lantana camara* L. (V. Rhaymuny). Fam. Verbenaceae
Ripe fruits are edible.
25. *Balanites roxburghii* Planch. (V. Hingan, Hinganbet). Fam. Balanitaceae
Ripe fruits are edible.
26. *Hemidesmus indicus* (L.) R. Br. ex Schult. (V. Khober-vel). Fam. Asclepidaceae
Root pest used to make tea.
27. *Pergularia daemia* (Forssk.) Chiov. (V. Utaran). Fam. Asclepidaceae
Flowers are used as vegetable.
28. *Ficus glomerata* Roxb. (V. Umbar). Fam. Moraceae
Ripe fruits are edible.

Among 33 wild edible plants; wild fruits (18) were used maximally followed by leaves (6), flower (7), gum (6) and root (1). Raw fruits of many species are used for vegetable and for pickles such as *Diospyros melanoxylon* Roxb., *Limonia acidissima* Groff. Most of the species are eaten raw and several species are used as sources of income. During the study period it was observed that some of the uncommon ethnomedicinal plant used by the local villagers were *Gardenia turgida* Roxb. (Singh *et al*, 2001) and *Balanites roxburghii* Planch. Common species such as *Canthium parviflorum* Lam., *Madhuca longifolia* (J. Koenig ex L.) J.F. Macbr., *Diospyros melanoxylon* Roxb. are collected by local villagers and tribals of forest area and sold in weekly market of village. The ethnobotany of Vidarbha is well studied in a broader sense. This work is well supported by the previous studies of Bhogaonkar *et al*., 2010, Dhore *et al*, 2010, Reddy, 2011, Kshirsagar, 2013, Zade *et al*., 2013 and Shende *et al.,* 2014.

Due to lack of sufficient information most of the knowledge of traditional wild edible and medicinal plant is not carried forward to younger generation, thus being lost eventually (Thakur *et al.,* 2013). During study period it was observed that children and youth didn't know about the uses of these plants. There is need to preserve this cultural and social information. A holistic and integrated approach involving field visits, excursions are essential for the preserving knowledge of Ethnobotanical plants. However, the flora and fauna of Pohara are facing various threats. The main threats are grazing, increasing population, land degradation and over utilization of minor forest product.

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