Ethnobotanical studies of Ghatsiras region in Ahmednagar district, Maharashtra (India)

A.P. Salave, P. Gopal Reddy and P.G. Diwakar

ABSTRACT

The present paper focuses on the traditional knowledge of inhabitants on the uses of wild plants in Ghatsiras area of Pathardi Taluka in Ahmednagar district of Maharashtra state. A total of twenty one plants used for various needs by the residents of study area are enumerated. The entire plant of Actinopteris radiata Sw. Link Cuscuta reflexa Roxb., the roots of Abrus precatorius (L.) Adhatoda vasica Nees. Asparagus racemosus Willd. Balanites aegyptiaca (L.) Diels Solanum xanthocarpum, L. Tecoma stans (L.) Juss. ex. Kunth. Withania somnifera Dunal, stem bark of Clerodendron serratum (L.) Moon., Ailanthus excelsa Roxb., shoot apex of Cynodon dactylon (L.) Pers., leaves of Annona squamosa Pers., Aristolochia bracteolata Lamk., Boerhavia diffusa (L.), Catharanthus roseus (L.) Don., fruits of Emblica officinalis Gaertn., Physalis minima L., Tinospora cordifolia (Linn.) Miers and Thoms and the seeds of Datura metel, L., Jatropha gossypifolia L. were found to have ethnobotanical importance.

Key words: Ghatsiras, Inhabitants, Traditional knowledge, Ethnobotanical uses

INTRODUCTION

Ancient ethnobotanical literature on global level suggests that the tribal, aboriginal people and forest dwellers have used large number of wild ethnoflora from hundreds of years for curing various ailments along with other routine uses viz., food, agricultural implements, fodder, gums, resins, tannins alkaloids etc. (Heywood, 1992). Traditional healers, ayurvedic practitioners, vaidyas and ethnic societies largely depend on plants for herbal drugs. Therefore, there is a need for scientific documentation of ethnobotanically important plants and to spread the traditional knowledge with regard to uses of plants which is done in the present work. Plants and information about their uses need to be preserved for our future.


Studyarea:

Ghatsiras is a religious place situated on the bank of Dhora river that originates in Vridheshwar hills on the Western side of Pathardi Taluka in Ahmednagar district of Maharashtra state in India and lies at an altitude of 650-700 meters between 19°10’31”N – 19° 31’32” N latitude and 74°71’49”E – 75° 10’51” E longitude. The area is occupied by 39% forests which are basically mixed typed. It is inhabited mostly by Mahadeo Koli tribal community who has been depending on the wild flora since long for their traditional needs and curing specific ailments. Ghatsiras experiences an average rainfall of about 378 cm and temperature range of 20°C to 36°C (Almeida, 2007).

MATERIALS AND METHODS

An ethnobotanical survey was carried out during July-2006 to December-2007 to collect traditional information from the inhabitants regarding ethnobotanical importance of flora in Ghatsiras area, through group discussions, questionnaires and informal interviews. The information gathered was confirmed from ayurvedic practitioners and other people.

Simultaneously the plant species of ethnobotanical

significance were collected and identified with the help of standard flora. (Cooke, 1967; Santapau, 1953; Almeida, 1990, 1996; Pradhan and Singh, 1999; Naik, 1998). Such plants were dried and mounted on herbarium sheets and preserved as voucher specimens in the department of Botany, P.V.P. College, Pravaranagar for record and reference.

RESULTS AND DISCUSSION

The scientific, vernacular and family names, plant part used and the ethnobotanical importance of twenty one plants are enumerated in Table 1.

Twenty one plants having ethnobotanical importance are reported, of these eighteen plants are used for curing various ailments. (Table 1). All parts of two plants, roots of seven plants, stem bark of two plants, shoot apex of one plant, leaves of four plants, fruits of three plants and seeds of two plants are used for various purposes by the inhabitants (Table 2). More surveys need to be carried out to know about the plant

<table>
<thead>
<tr>
<th>Botanical name</th>
<th>Vern. name</th>
<th>Family</th>
<th>Part used</th>
<th>Ethnobotanical uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrus precatorius L.</td>
<td>Gunj</td>
<td>Fabaceae</td>
<td>Root</td>
<td>Handful of fresh roots is crushed in a cupful of goat’s milk, filtered and the extract is given with 1-2 tsp of castor oil (Ricinus communis) as laxative.</td>
</tr>
<tr>
<td>Actinopteris radiata (Sw.)</td>
<td>Link.</td>
<td>Actinopteridaceae</td>
<td>Whole plant</td>
<td>Decoction of whole plant in a cupful of goat’s milk is administered with a pinch of sugar for curing diarrhoea. 1-2 tsp of root decoction and 1 tsp powder of dried ginger (Zingiber officinale) rhizome is mixed in a glassful of goat’s milk and given to patient suffering from bronchial ulcer.</td>
</tr>
<tr>
<td>Adhatoda vasica Nees.</td>
<td>Adulsa</td>
<td>Acanthaceae</td>
<td>Root</td>
<td>One tola (about 10g) fresh stem bark is crushed in castor (Ricinus communis) oil and rubbed on the skin twice a day for 2-3 days to cure ringworm disease of pet animals like dogs, cats etc.</td>
</tr>
<tr>
<td>Ailanthus excelsa Roxb.</td>
<td>Maharukh</td>
<td>Simaroubaceae</td>
<td>Stem bark</td>
<td>An extract from 3-4 fresh leaves mixed with 1tsp Nilgiri oil (Eucalyptus globules) is used as laxative in pet animals.</td>
</tr>
<tr>
<td>Annona squamosa Pers.</td>
<td>Seetaphal</td>
<td>Annonaceae</td>
<td>Leaf</td>
<td>Fresh leaf extract and neem (Azadirachta indica) oil is mixed together and rubbed on the skin of pet animals twice a day for 3 days to get rid of ticks.</td>
</tr>
<tr>
<td>Aristolochia bracteolata Lamk.</td>
<td>Gindhan</td>
<td>Aristolochiaceae</td>
<td>Leaf</td>
<td>An extract from 3-4 fresh leaves mixed with 1tsp Nilgiri oil (Eucalyptus globules) is used as laxative in pet animals.</td>
</tr>
<tr>
<td>Asparagus racemosus Wild.</td>
<td>Shatavari</td>
<td>Liliaceae</td>
<td>Root tubers</td>
<td>Half tola (about 5g) fresh root tubers are eaten raw along with roasted garlic (Allium sativum) for increasing sex desire and potency in men.</td>
</tr>
<tr>
<td>Balanites aegyptiaca (L).Diels</td>
<td>Hingani</td>
<td>Balanitaceae</td>
<td>Root</td>
<td>Fresh root pulp in honey is used as laxative in children below 6 years age.</td>
</tr>
<tr>
<td>Boerhaavia diffusa L.</td>
<td>Punarnawa</td>
<td>Nyctaginaceae</td>
<td>Leaf</td>
<td>Fresh leaves along with dried coconut (Khobara) are given to children early in the morning after exercise for improving intelligence.</td>
</tr>
<tr>
<td>Catharanthus roseus (L).Don.</td>
<td>Sadafuli</td>
<td>Apocynaceae</td>
<td>Leaf</td>
<td>Leaf paste along with turmeric powder (Curcuma longa) and castor (Ricinus communis) oil is rubbed on body part twice a day for 3 days to get relief from muscular pains in the swelling.</td>
</tr>
<tr>
<td>Clerodendron serratum (L).Moon.</td>
<td>Bharang</td>
<td>Verbenaceae</td>
<td>Stem bark</td>
<td>One tola (about 10g) fresh stem bark is soaked in cow’s urine overnight. On the next day, it is crushed in lime and used as biopesticide for thrips, grasshoppers and aphides.</td>
</tr>
<tr>
<td>Cuscuta reflexa Roxb.</td>
<td>Aamarvel</td>
<td>Convolvulaceae</td>
<td>Whole plant</td>
<td>Entire plant (about 10 g) is crushed in ginger (Zingiber officinale) and rubbed on painful joints in patient suffering from rheumatism.</td>
</tr>
</tbody>
</table>
resources which are of immense value to the living and welfare of tribal community. Such studies help to preserve and pass on the traditional ethnobotanical knowledge of the tribals and other ethnic communities to the next generations. Efforts must be taken to protect and conserve such plants from being lost due to deforestation and urbanization.

**Acknowledgement:**

Authors are thankful to the Principals’ of concerned colleges for the encouragement and support. PGR and APS also acknowledge the help rendered by Dr. Sharma from Deogiri College, Aurangabad and Dr. B.K. Auti from Mahila Mahavidyalaya, Ahmednagar. A.P. Salave is greatly indebted to UGC for providing teacher fellowship.
REFERENCES


Address for correspondence:
P. GOPAL REDDY
Department of Botany, Padmashri Vikhe Patil College, PRAVARANAGAR (M.S.) INDIA
E-mail: r_pgopal@yahoo.com

Authors’ affiliations:
A.P. SALA VE AND P.G. DIWAKAR
Botanical Survey of India, Western Circle, PUNE (M.S.) INDIA