

## HERBAL PLANTS FOR MENTAL HEALTH: SURVEY OF CHANDOLI REGION.

**Rekha R. Deokar<sup>\*</sup>, Shubhangi R. Kamble<sup>1</sup>, Satish R. Mane<sup>2</sup> and Sarjerao R. Patil<sup>3</sup>**

<sup>\*</sup><sup>1</sup>Assistant Professor, D.A.B.N. College, Chikhali, Shirala, Sangli, M.S, India.

<sup>2</sup>Director of Physical Education, D.A.B.N. College, Chikhali, Shirala, Sangli, M.S.

<sup>3</sup>Principal, D. A. B .N. College, Chikhali, Shirala, Sangli, M.S, India.

Article Received on  
17 Dec. 2017,

Revised on 06 Jan. 2018,  
Accepted on 27 Jan. 2018

DOI: 10.20959/wjpr20183-10913

### **\*Corresponding Author**

**Dr. Rekha R. Deokar**

Assistant Professor,  
D.A.B.N.College, Chikhali,  
Shirala, Sangli, M.S, India.

### **ABSTRACT**

An ethno-botanical survey of Chandoli National forest was conducted during February 2014 to April 2016. It is included in Western Ghat, the hot spot for biodiversity of plants. It is rich in ethno medicinal plants. The main purpose of this survey was to document the traditional use of medicinal plants for mental health in Chandoli Forest. 29 species belonging to 28 genera and 20 families were found to be used to treat some psychological disorder. Due to poor condition of modern health care facilities and poverty indigenous peoples of the district fully or partially depends on local medicinal plants. An attempt has been made to document traditional knowledge of local people of Chandoli on treatment of mental health.

**KEYWORDS:** Chandoli, ethno-botany, psychological & mental disorders, Traditional herbal medicine.

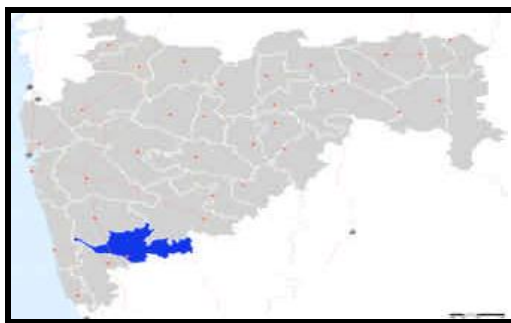
### **INTRODUCTION**

India is a major centre of origin and diversity of medicinal plants. Chandoli is the part of Western Ghats and it is the hot spot for biodiversity of plants. Traditional knowledge of herbal remedy to treat human diseases is fast declining in many parts of the world, including India. In India, about 2500 species belonging to more than 1000 genera and about 158 families are used in indigenous system of medicine.<sup>[1]</sup> Traditional practitioners have their own traditional knowledge to treat Psychological (Mental) Disorders. "State of bodily and mental unrest", which decreases the ability to achieve daily goals. The causes are different; such as any situation that alters the emotional state or mood is interpreted as a possible

triggering agent. American Psychiatric Association classify the Psychological disorders into DSM-IV (Diagnostic and Statistical Manual of Mental Disorders-IV, adapted from) & ICD-10 (International Statistical Classification of Diseases & Related Health Problems-10) are a function of many factors, such as exposure to stress, genetic disposition, family background, and so on. In Psychology, feeling of strain & pressure is a stress. Insomnia or sleeplessness is a sleep disorder in which there is an inability to fall asleep or to stay asleep as long as desired. Amnesia is a deficit in memory caused by brain damage, disease or Psychological trauma. Anxiety disorders are type of abnormal behaviors characterized by unrealistic, irrational fear. Obsessive-Compulsive Disorder is a type of anxiety disorder characterized by intrusive thoughts & urges to perform repetitive, ritualistic behaviors. Depression experience sadness, disturbed sleep and reduced concentration and attention (WHO, 2010). In the feelings of desperation, concentration difficulty, emotional condition of restlessness, insomnia, irritability or feelings of hopelessness etc. Other health problems may be present, such as loss of appetite or increased appetite, headaches, rapid heart palpitations, and high or low pressure, chest and abdominal pains, tingling sensations, hair loss, dermatitis and/or weakness. Schizophrenia is a mental disorder often characterized by abnormal social behavior and failure to recognize what is real. Most of the people do not approach doctors due to lack of knowledge, costly medicine, and different instrumental treatments like MRI, CAT, X-ray test, etc. Traditional healers & herbal medicines are very cheap & easily available. The present study was initiated with an aim to identify medicinal plants resources from traditional practitioners of Sangli district to treat the Psychological Disorders.

### Study Area

Chandoli is Indian National Park established in May 2004.<sup>[2]</sup> Early a Wildlife Sanctuary declared in 1985.<sup>[3]</sup> It is located near the Vasant Sagar dam on Warana river, between longitude 73°40' E and 73°53' E and latitude 17°03' N and 17°20' N near Sangli in Western Maharashtra. It is located at the junction of Sangli, Kolhapur, Satara and Ratnagari Districts. It is one of the hot spot for biodiversity from Western Ghats.<sup>[4, 5]</sup>



## MATERIAL AND METHODS

The present study is based on the intensive field survey in interior villages adjoining forest area to collect ethno botanical core. Ethno botanical survey during February 2014 to April 2016 carried out in Chandoli forest with frequent field trips. First hand information was gathered through interactions with rural people including members of forest protection committee, elderly people, traditional medical practitioners and local vaidues. Herbal plants referred by these people were authentically identified with the help of The Flora of The Presidency of Bombay, Botanical Survey of India.<sup>[6]</sup> The collected information was documented for their mental disorder properties. The collected information is arranged in the alphabetic order of plants with botanical name, family along with local or common name, habit and mental disorders for each plant. To ascertain the uses of these medicinal plants the earlier published scientific literature sources referred.<sup>[7to 18]</sup>

## RESULT AND DISCUSSION

**Table 1: Medicinal plants used to treat some psychological (mental) disorders by traditional practitioners from Chandoli region.**

Botanical name	Family	Local/ Vern Name	Habit	Mental Disorders
<i>Abrus precatorius L.</i>	Papilionaceae	Gunj	Tree	Mental stress
<i>Annona reticulate L.</i>	Annonaceae	Ramaphal	Tree	Schizophrenia
<i>Annona squomosa L.</i>	Annonaceae	Sithaphala	Tree	Depression
<i>Bacopa monnieri L.</i>	Scrophulariaceae	Neerbrahmi	Herb	Schizophrenia
<i>Basella alba L.</i>	Basellaceae	Mayalu	Climber	Anxiety
<i>Brassica oleraceae L. Var. Capitata</i>	Brassicaceae	Kobi	Herb	Insomnia
<i>Catharanthus roseus (L.) G. Don</i>	Apocynaceae	Sadaphuli	Herb	Bipolar disorder
<i>Erythrina suberosa (Roxb.)</i>	Papilionaceae	Pangera	Tree	Dissociative disorder
<i>Evolvulus alsinoides (L.)</i>	Convolvulaceae	Shankapushpi	Small herb	Mental retardation and Schizophrenia
<i>Mucuna prurita Hk.</i>	Papilionaceae	Khajkhujali	Climber	amnesia
<i>Musa paradisiaca L.</i>	Musaceae	Kela	Shrub	Depression and

				Dissociative Disorder
<i>Myristica fragrans</i> Houtt.	Myristicaceae	Jaiphal	Tree	Amnesia, Schizophrenia and insomnia
<i>Origanum majorana</i> L.	Lamiaceae	Marwa	herb	Bipolar disorder
<i>Phoenix sylvestris</i> (L.) Roxb.	Arecaceae	Sindi	Tree	Mental stress
<i>Plumbago zeylanica</i> L.	Plumbaginaceae	Chitrak	Herb	Dissociative Disorder
<i>Portulaca oleraceae</i> L.	Portulocaceae	Gholu	Small herb	Depression and Schizophrenia
<i>Rostellularia diffusa</i> (L.) Nees	Acanthaceae	Kalmashi	Small herb	100gm of whole plant is ground with 100ml of water the juice is administered to drink till the recovery.
<i>Rouvilfolia tetraphylla</i> L.	Apocynaceae	Chandrike	Shrub	Insomnia and anxiety
<i>Sesbania grandiflora</i> (L.) Poir	Papilionaceae	Hatga	Small tree	Mental retardation (intellectual disability)
<i>Sida cordifolia</i> L.	Malvaceae	Chikana	Herb	Schizophrenia and Obsessive compulsive disorder
<i>Tabernaemontana divaricata</i> (L.) R Br.	Apocynaceae	Anant or Tagar	Shrub	Mental stress and Depression
<i>Terminalia chebula</i> Retz.	Comretaceae	Behada	Tree	Schizophrenia and mental retardation
<i>Trichosanthes anguinum</i> L.	Cucurbitaceae	Jangali Padawal	Climber	Obsessive compulsive disorder
<i>Vitex negundo</i> L.	Verbinaceae	Nirgudi	Shrub	Dissociative disorder
<i>Withania somnifera</i> (L.)	Solanaceae	Ashwagandha	Shrub	Mental stress, Insomnia, Amnesia and anxiety
<i>Zea mays</i> L.	Poaceae	Maka	Herb	Bipolar disorder
<i>Ziziphus mauritiana</i> Lam.	Rhamnaceae	Bor	Tree	Obsessive compulsive disorder and Schizophrenia

In the present investigation, 20 families with 28 genera and 29 species of angiosperms are reported (Table 1). The predominant family is Papilionaceae and Apocynaceae with 4 species, followed by Convolvulaceae, Annonaceae and poaceae with 2 species each. Data obtained from the survey is represented in Table 1. All plant species with botanical name, family, local name, Habit and mental disorder are tabulated. Review of related literature reveals that medicinal plants used by the traditional practitioners of this area are not recommended on other areas for same purpose.<sup>[19]</sup> However these plants were used for other human ailments. For Instance root and bark of *Sida cordifolia* used for infections, diabetes and biliary problem. and Fruit of *Terminalia chebula* used for increase intelligence, good for

eyes, to increase longevity, respiratory problems, coughs, piles, leprosy, edema, helminthiasis, breaking down of voice, chronic dysentery, constipation, tumor or swelling, jaundice, loss of appetite, stone dissolving.<sup>[20]</sup> Review of related literature also reveals that medicinal plants used by the traditional practitioners of this area are also recommended on other areas for same purpose.<sup>[17,21]</sup> Most of the people dependent on traditional herbal medicine because availability of effective drug plants. Hence, these plants can be taken up for further pharmacological and clinical studies. By this investigation researcher documented 29 plants can be used to treat various psychological disorders such as mental stress, Schizophrenia, Depression, Anxiety, Bipolar disorder, Insomnia, Mental retardation, Dissociative Disorder.

## REFERENCES

1. Seetharam Y.N., Kotresha K. and Uplaonkar S.B. Flora of Gulbarga district, Gulbarga University, Gulbarga, 2000.
2. Loksatta, 2004, [www.loksatta.com](http://www.loksatta.com).
3. Times of India, 2004, [www.timesofindia.indiatimes.com](http://www.timesofindia.indiatimes.com).
4. Gazetteer of India, General Climate, Maharashtra State, Sangli District, Directorate of Govt. Printing, Stationary and Publications Maharashtra State, Bombay, 1969; 12.
5. Rekha R. Deokar, Satish R. Mane, Shubhangi R. Kamble and Sarjerao R. Patil. A New Locality Record For An Endangered Plant Species *Entada Rheedei* Sprong. (Mimosaceae) In Sangli District, Maharashtra., World Journal of Pharmaceutical Research, 2017; 6(17): 405-409.
6. Theodore Cooke, The Flora of The Presidency of Bombay, Botanical Survey of India, Calcutta, Vol. I, II, III. 1967.
7. Anonymous, Quality Standards of Indian Medicinal Plants, Vol.1st, Indian Council of Medical Research, New Dehli, 2003; 95-248.
8. Anonymous, Wealth of India, Raw Materials, 1992, Vol.1st -5th, Coucil of Scientific and Industrial Research, New Dehli, 1962.
9. Jain S.K. Medicinal Plants, National Book Trust, New Dehli, 2001; 23-185.
10. Kirthikar K.R., Basu B.P., Indian Medicinal Plants, Vol.1st - 4th, Periodical Experts, New Dehli, 1975.
11. Kirthikar K.R., Basu B.P., Indian Medicinal Plants, Vol.3rd, Edition 2nd, Periodical Experts, New Dehli, 1991.

12. Ambasta SP, Ram, Chandran K, Kashyappa K, Chand R 1992. *The Useful Plants of India*. New Delhi :Publications and Information Directorate, CSIR.
13. Agarwal S.S., Tamrakar B.P., Paridhavi M. Clinically useful Herbal Drugs, 1<sup>st</sup> Edition, Ahuja publishing House, Delhi, 2005; 27-300.
14. Nadkarni K.M., Indian Materia Medica, Vol. I, Popular Prakashan, Mumbai, 2002, pp. 4-5, 23-28, 103-108, 284-864, 1001-1243 Panigrahi A.K. and Panigrahi A. (S), Glossary of Useful and Important Plants, New Central Book Agency, 2000.
15. Kapase Harishchandra, Ayurvedic Aushdhi Vanspati, Sun Publication, Pune, 2003.
16. Karve P.J. Miracles of Ayu rvedic Herbs, English Edition Publisher,(India), 2005; 27-29, 103-165.
17. Panigrahi A.K. and Panigrahi A. (S), Glossary of Useful and Important Plants, New Central Book Agency, 2000.
18. Deokar Rekha R., Shubhangi R. Kamble, Satish R. Mane and Sarjerao R. Patil, Survey of Ethno medicinal Plants with Antidiabetic Potential from Chandoli, Dist. Sangli, (M.S.) India. *Journal of Pharmacy Research*, 2012; 5(2): 1001-1003.
19. Romeiras M.M, Maria, Duarte C, Indjai B and Catarino L. Medicinal Plants Used to treat Neurological disorders in West Africa: A case study with Guinea-Bissau Flora, *American Journal of Plant Sciences*, 2012; 3: 1028-1036.
20. Rajkumar N. and Shivanna M. B. Traditional Herbal medicinal Knowledge in Sagar taluk of Shimoga District, Karnataka, India, *Indian J Nat Prod Resour*, 2010; 1(1): 102-108.
21. Vidyasagar G.M and murthy siddalinga S.M. Ethno medicinal plants to treat menstrual disorders by tribal people in Bellary district of Karnataka, India, *Int. J. Pharm. & Life Sci. (IJPLS)*, July: 2012; 3(7): 1871-1876.