Arts & Commerce College, Warwat Bakal

Department of Botany

Index of Research Publication

Sr. No	Title with page nos.	Name of Author	Name of Department	Year	Journal	Impact Factor
1	A Survey Of Wild Edible Plants From Jalna District, Maharashtra State, India Page No-952-956	Dr. N K More	Botany	2023	International Journal of Research and Analytical Reviews	Peer reviewed
2	Ethnoveterinary Practices for reproductive ailments by villages nearby Ambabarva Wildlife Sanctuary, Buldhana District MS, India	Dr. N K More	Botany	2024	International Journal of Life Sciences	Peer reviewed

Peer Reviewed ISSN Approved | Impact Factor: 7.17

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS

International Peer Reviewed & Refereed Journals, Open Access Journal
E-ISSN 2348-1269, P- ISSN 2349-5138

Scholarly open access journals, Peer-reviewed, and Refereed Journals, Impact factor 7.17 (Calculate by google scholar and Semantic Scholar | AI-Powered Research Tool), Multidisciplinary, Monthly, Indexing in all major database & Metadata, Citation Generator, Digital Object Identifier (DOI), UGC Approved Journal NO: 43602(19)

Publisher and managed by: IJ Publication

Website: www.ijrar.org | E-mail: editor@ijrar.org

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

A SURVEY OF WILD EDIBLE PLANTS FROM JALNA DISTRICT, MAHARASHTRA STATE, INDIA

Nandkishor K More[1] and Arvind S Dhabe[2]

[1]Department of Botany, Arts & Commerce College, Warwat Bakal District-Buldhana Maharashtra State, India

[2]Department of Botany, Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhaji Nagar, Maharashtra State, India

Abstract

The Present study deals with the exploration, identification and documentation of wild edible plants from Jalna district of Maharashtra state. The dry deciduous types forest present in the Jalna district which distributed in all over the region. Mostly thorny shrubs with barren and rocky patches scattered in the area. The ethnobotanical survey of the region resulted in the documentation of 32 wild plant species that are consumed by villages and tribals of the region. The investigation shows that, wild edible plants species belongs to 25 angiospermic families of which 31 were dicotyledonous families and 1 genus form monocotyledonous family.

Keywords: Field survey, Wild edible plants, Jalna district

Introduction

The people depend on natural resources either directly or indirectly for food, clothes, shelter and medicine. Present investigation includes a survey of wild flowering plants reported from the Jalna districts which have food potential; they are utilized for edible purposes. Plant parts like root tubers, leaf, stem, flowers, fruits have food values. According to the Census of India (Census, 2011), total population reach to 1.25 billion, total tribal are 104.2 million, they dependence on plant resources. It is intimated that, approximately 80% of the population of the world still relies on the old system for human and animal treatment, due to cultural tradition and economic reason (WHO). In few years valuable information about indigenous knowledge of folk medicine was plant in a form of Dictionary of Indian Folk Medicine and Ethnobotany. The field studies have been conducted in the tribal area of Central India by Jain and his associates (Jain S. K.,1981 &1991). Datar and Vartak (1975), published wild edible plants of Karnala Bird Sanctuary. Wild edible plants of Chandrapur district, Maharashtra, India is given by Reddy B. Mallesh 2012. Mahadkar and Jadhav (2013), Worked on traditional uses of some wild edible plants from Kolhapur district. Ethno-botanical studies of edible plants used by tribal women of Thane district is given by Oak *et al*., 2015. Bhogaonkar and Saudagar (2017) study Wild edible plants of Gadchiroli district of Maharashtra, India and their economic potential. Unlike this in past decades, researcher concentrated on ethnobotany of the globe, which helps to complete further scientific studies in the plant sciences. A very less attention has given on utilization of Plants from Jalna district. Present investigation helps for documentation wild edible plants of the study area.

Study Area

Jalna is one of the district of Maharashtra State. The state having five divisional regions viz. Konkan, Deccan or Desh, Khandesh, Marathwada and Vidharbha. The Jalna district is part of Marathwada division of Maharashtra state. It covers exactly central part of the state area and North Marathwada. The district has eight Tahsil viz. Jalna, Badnapur, Ambad, Partur, Mantha, Ghansawangi, Bhokardan and Jafrabad. It lies between 19° 1' and 21° 3' North longitude and 75° 4' to 76° 4' East longitude (**Plate I).** shows Map of Maharashtra and Jalna district. The total area of 7, 612 Sq. Km. present which contributes 2.47% of the total state area. The district has population 19.58 Lac (Census 2011), with an average density 255 per Km.; the literacy 81.24% in urban area and 69.17% in rural areas. The boundaries of study area are adjacent to Parbhani and by Jalgaon on North and Buldhana district on east, Beed on south and Aurangabad on west.

Plate. I

Fig. Plate II

Plate I & II: Shows Map of Jalna district, Exploration and PRA exercise

MATERIALS AND METHODS

Intensive floristic surveys were carried out in the different localities to collect information and specimens of wild edible plants. Consistent field trips were arranged in every month during the course of investigation. All the necessary equipments and chemicals were carried with us during each trip to collect maximum number of plant specimens, plant parts (like Root, Stem, Leaves, Flowers, Fruits etc.) to know their utility. The plants specimens were photographed with digital camera during each field visit. Collected flowering plants specimens were identified by using local Floras, Flora of Marathwada, V N Naik, 1998; Flora of Buldhana District, Diwakar & Sharma 2000; Flora of Kolhapur District, Yadav & Sardesai 2002. Identified Plants specimen proceeds for herbarium and deposited in *BAMU* Herbarium.

Ethnomedicinal survey and PRA Exercise -

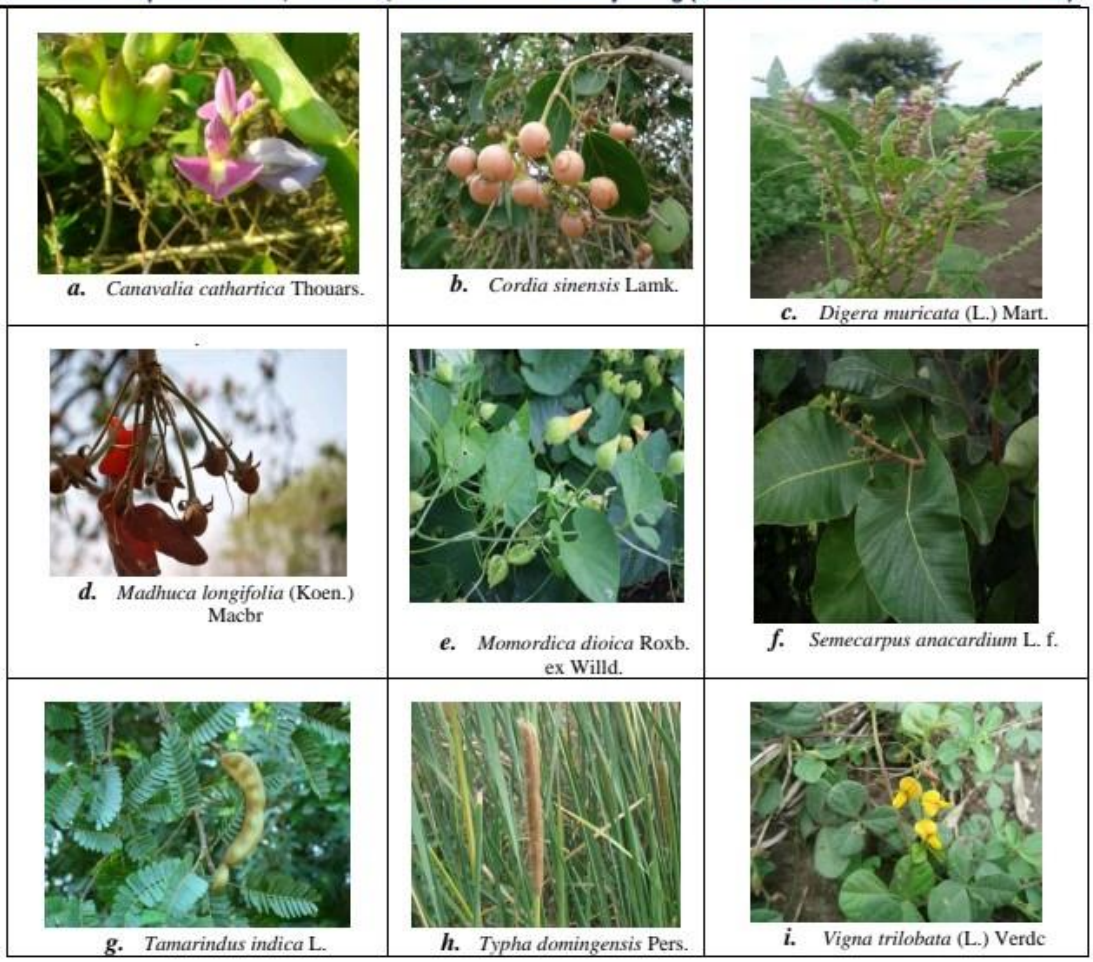
During the exploration, ethnomedicinal surveys were carried out in the Jalna district. The utilization of each plant species was recorded from the different informants by questionnaires method. Along with this, we arranged PRA (Preparatory Rural Assessment) meeting with Vaidyas in every month to know local names, properties and uses of plants. **Plate II** focuses the methodology used for present work. Local people of different ages were also invited in such meeting.

RESULTS AND DISCUSSION

A total 32 wild edible plant species documented from Jalna district of Maharashtra state distributes into 25 Angiospermic families. Ripe and raw fruits of some wild edible plants species were eaten directly without any ingredients while in some cases leaves, fruits may use as vegetables. Tuber, fleshy thalamus, rhizome may roasted or eaten directly by villagers of the study area. During field survey, documentation of wild edible plants species is shown in following Tabulated form. **Table No. 1** shows the information about utilization wild edible plants. All wild plants were arranged in alphabetical orders with their mode of uses.

Table: 1 Enumeration of Wild Edible Plants from Jalna district

Sr. No	Scientific Name	Family	Local Name	Part Used	Mode of Use
1	*Aegle marmelos* (L.) Corrêa.	Rutaceae	Bel	Fruits	Ripe Fruits eaten
2	*Annona reticulata* L.	Annonaceae	Ramphal	Fruits	Ripe Fruits eaten
3	*Buchanania cochinchinensis* (Lour.) Almeida.	Anacardiaceae	Charoli	Fruits	Ripe fruit pulp eaten
4	*Canavalia cathartica* Thouars.	Fabaceae	Govara, Abai	Fruits and Seeds	Vegetable
5	*Canthium coromandelicum* (Burm. f.) Alston.	Rubiacae	Karbet, Kara	Fruits	Raw
6	*Carissa spinarum* L.	Apocynaceae	Karawand	Fruits	Ripe fruits are edible
7	*Celosia argentea* L.	Amaranthaceae	Kurdu	Leaves	Vegetable
8	*Coccinia grandis* (L.) Voigt.	Cucurbitaceae	Tondli	Fruits	Vegetable
9	*Colocasia esculenta* (L.) Schott.	Araceae	Alu, Chamkura	Leaves	Vegetable
10	*Corchorus olitorius* L.	Malvaceae	Mothe Chonche	Leaves	Vegetable
11	*Cordia sinensis* Lamk.	Boraginaccae	Gondani	Flowers	Vegetable
12	*Digera muricata* (L.) Mart.	Amaranthaceae	Tadul Kundra	Leaves	Vegetable
13	*Dioscorea bulbifera* L.	Dioscoreaceae	Dukkar kand	Tubers, Bulbils	Tubers and bulbils are eaten
14	*Diospyros exsculpta* Buch.-Ham.	Ebenaceae	Temburni	Fruits	Ripe fruit pulp are eaten
15	*Ficus racemosa* L.	Moraceae	Bhui Umbar	Fruits	Raw
16	*Gmelina arborea* Roxb.	Lamiaceae	Shiwan	Fruits	Raw
17	*Limonia acidissima* Groff.	Rutaceae	Kauth	Fruits	Raw
18	*Madhuca longifolia* (Koen.) Macbr.	Sapotaceae	Moha, Mahuwa	Flowers	Raw
19	*Momordica dioica* Roxb. ex Willd.	Cucurbitaceae	Kartule	Fruits	Vegetable
20	*Morus alba* L.	Moraceae	Tuti	Fruits	Ripe fruits are eaten
21	*Oxalis corniculata* L.	Oxalidaceae	Ambushi	Leaves	Vegetable
22	*Phoenix sylvestris* (L.) Roxb.	Arecaceae	Shindi	Fruits	Raw
23	*Portulaca oleracea* L.	Portulacacae	Ghol	Leaves	Vegetable
24	*Semecarpus anacardium* L. f.	Anacardiaceae	Bibba, Bhilavaa	Fleshy thalamus	Fruit hypocarp and seeds are eaten
25	*Senna tora* (L.) Roxb.	Fabaceae	Takla	Leaves	Vegetable
26	*Solanum anguivi* Lamk.	Solanaceae	Dorli	Fruits	Vegetable
27	*Syzygium cumini* (L.) Skeels.	Myrtaceae	Jambhul	Fruits	Raw
28	*Tamarindus indica* L.	Fabaceae	Chinch, Imli	Pulpy mesocarp of Fruits	Raw
29	*Terminalia bellirica* (Gaertn.) Roxb.	Combretaceae	Beheda	Seeds cotyledons	Seeds cotyledons are eaten
30	*Typha domingensis* Pers.	Typhaceae	Ramban	Rhizome	Eaten on roasted
31	*Vigna trilobata* (L.) Verdc.	Fabaceae	Moogi	Fruits	Raw
32	*Ziziphus rotundifolia* Lamk.	Rhamnaceae	Bor	Fruits	Raw



a. *Canavalia cathartica* Thouars.

b. *Cordia sinensis* Lamk.

c. *Digera muricata* (L.) Mart.

d. *Madhuca longifolia* (Koen.) Macbr

e. *Momordica dioica* Roxb. ex Willd.

f. *Semecarpus anacardium* L. f.

g. *Tamarindus indica* L.

h. *Typha domingensis* Pers.

i. *Vigna trilobata* (L.) Verdc

Plate-III: Habit diversity of some wild edible plants from Jalna district.

DISCUSSION

The present ethnobotanical survey was conducted in different localities of Jalna district of Maharashtra has resulted into documentation of 32 wild edible plants species. The tender leaves of 12 plant species are edible and used as vegetable and edible parts of 20 plants are eaten via. cooked or eaten as raw or sometimes roasted. The plant parts like root, stem, leaves, flowers, fruits, and seeds are uses for edible purpose. Plate-III compiled for habit diversity of some wild edible plants of different localities from Jalna district. The fruit of *Buchanania cochinchinensis* (Lour.) Almeida. are edible; locally the plant is called as *Charoli*. The children and many villagers collect the fruits of this plants and used for making many food products. The weed plants found in agricultural field like *Celosia argentea* L., *Oxalis corniculata* L., *Corchorus olitorius* L., *Colocasia esculenta* (L.) Schott., *Digera muricata* (L.) Mart., *Portulaca oleracea* L., *Senna tora* (L.) Roxb. etc. The plant like *Typha domingensis* have edible rhizome, it consumed by the people when roasted. The present investigation shows that, wild edible plants species belongs to 25 angiospermic families of which 31 were dicotyledonous families and 1 genus form monocotyledonous family. Wild vegetables are the famous recipes for villagers and become main ingredients in the diet when available. Edible fruits may consumed for fulfillment of new test and also have efficiency to cure human health problems.

ACKNOWLEDGEMENT

Authors are thankful to all villages and tribal people of Jalna district for participating PRA and sharing valuable information with us during study. We also thankful to Head Department of Botany, Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhaji Nagar for providing necessary facilities during the work.

REFERENCES

[1] Anonymous 2011. District census Handbook Jalna, Directorate of Census Operations, Maharashtra, Series-28, Part-XII-B.

[2] Bhogaonkar P. Y. and Saudagar P. N. 2017. Wild edible plants of Gadchiroli district of Maharashtra, India and their economic potential, Traditional and Folk Practices, Volume 05 (2), December 2017, 117 - 152.

[3] Datar Rekha and V. D. Vartak 1975. Enumeration of wild edible plants from Karnala Bird Sanctuary, Maharashtra State, Boivigyanam, Vol. 1: pp.123-129.

[4] Diwakar P. G. & B. D. Sharma 2000. Flora of Buldhana district, Botanical Survey of India, P-B Brabourne Road, Calcutta-70001.

[5] Jain S. K. 1981. Glimpses of Indian Ethnobotany, Mohan Primlani, Oxford & IBH Publishing Co., 66 Janpath, New Delhi.

[6] Mahadkar S. D. and Jadhav Varsha 2013. Traditional Uses of Some Wild Edible Plants from Kolhapur District, Life Sciences Leaflets, Vol. 5, pp. 19-26.

[7] Naik V. N. 1998. Flora of Marathwada, Vol. I & II, Amrut Prakashan, Aurangabad.

[8] Oak Gayatri, Poonam Kurve, Siddhisha Kurve, Madhuri Pejaver 2015. Ethno-botanical studies of edible plants used by tribal women of Thane district, Journal of Medicinal Plant Studies, Vol. 3 (2): pp. 90-94.

[9] Reddy B. Mallesh 2012. Wild edible plants of Chandrapur district, Maharashtra, India, Indian Journal of Natural Products and Resources, Vol. 3 (1): pp. 110-117.

[10] Upadhye Anuradha, M. S. Kumbhojkar and V. D. Vartak 1986. Observations on Wild Plants used in Folk Medicine in the Rural Areas of the Kolhapur District, Ancient Science of Life, Vol. No. VI, No. 2: 199-121.

[11} Vijigiri Dinesh and Shivraj Kashinath Bembrekar 2015. Traditional Knowledge of Wild Edible Plants Used in the Mahur Taluka of Nanded District, Maharashtra, Research Direction, Vol. 2, Issue 9: pp. 1-5.

[12] Yadav S R & Sardesai M M, 2002. Flora of Kolhapur District, Shivaji University, Kolhapur.

International Journal of Life Sciences
International Peer Reviewed Open Access Refereed Journal

Int. J. of Life Sciences, 2023; 12 (1): 53-58
ISSN:2320-7817(p) | 2320-964X(o)

Research Article Open Access

Ethnoveterinary practices for reproductive ailments by villagers nearby Ambabarva Wildlife Sanctury, Buldhana District, MS, India

Mhasal Santosh S[1*], Marathe Vishal R[2*] and More Nandkishor K[1]

[1]Department of Botany, Arts and Commerce College, Warwat Bakal, Dist. Buldhana-444202
[2]Research Supervisor, Department of Botany, N. E. S. Science College, Nanded-431605 (M.S.), India
*Corresponding Author Email:- santoshsmhasal2021@gmail.com

Manuscript details:
Received: 27.01.2024
Accepted: 24.02.2024
Published: 31.03.2024

Cite this article as:
Mhasal Santosh S, Marathe Vishal R and More Nandkishor K (2024) Ethno-veterinary practices for reproductive aliments by villagers nearby Ambabarva Wildlife Sanctury, Buldhana District, MS, India, *Int. J. of Life Sciences*, 12 (1): 53-58.

Available online on http://www.ijlsci.in
ISSN: 2320-964X (Online)
ISSN: 2320-7817 (Print)

ABSTRACT

The Amba Barwa Wildlife Sanctuary is situated in satpuda hills of Buldhana District of Maharashtra. The current study is based on a comprehensive field survey that the authors conducted in this area for ethnoveterinary applications, with a focus on reproductive problems, between June 2019 and July 2022. Traditionally, local and tribal people in this area have used locally accessible ethnoveterinary medicines to treat a variety of illnesses affecting the animal populations. This study report contains data gathered from 68 Vaidus or informants, in the specified region. The 21 families comprise a total of 25 plants that were mostly used to treat reproductive diseases and abnormalities in domestic animals, such as anestrous condition, placenta retention, uterine prolapse, etc.

Keywords: Reproductive ailments, Ethnoveterinary, Ambabarva Wildlife Sanctuary.

INTRODUCTION

Since human civilization man use medicinal plants to cure various ailments of cattle. A cattle farming is one of the most income generating occupation in India. It also helps in agricultural work and maintenance in various ways to enhance Indian economy even present day. Ethnoveterinary medicine, deals with traditional animal health care which encompasses the knowledge, skill, methods, practices concerning animal health care (Kumar and Nagayya, 2017). These ethnoveterinary medicines are used by villagers traditionally to treat animals. Many authors documented traditional ethnoveterinary practices of Buldhana district Maharashtra State (Marathe *et al.*, 2010; Patil *et al.*, 2010; Pocchi, 2013; Patil and Rothe, 2017). This is totally based on knowledge acquired by traditional healers from his ancestry. This indigenous knowledge of the veterinary health care is sometimes also be transmitted orally from one generation to next generation. Thus, it is time need to conserve the hole documentation of these indigenous knowledge.

Fig. 1 Study area of Ambabarva wildlife Sanctuary, Buldhana district

Study Area:

Ambabarva Wildlife Sanctuary is rich biodiversity region. It is situated in the western side of Melghat Tiger Reserve in the Sangrampur Tahsil of Buldhana district of Maharashtra state, India. It includes reserve forest of 102.10 Km^2. Protected forest 22.62 $Km^2$and remaining is under cultivation and inhabited by tribal *Ambabarva, Chunkhadi and Rohinkhidki* of Sangrampur Taluka of Buldhana District (Fig. 1).

It is a land of small holdings and 70% of population practice subsistence agriculture, but the most tribal and farmers are not self-sufficient. They have to rear domestic animals such as oxen, cows, buffaloes, goats and sheep. As per the 20th livestock census (2019), there are total numbers of cattle was 461529, buffaloes were 134148, sheep were 125280 and goats were 364689 in the Buldhana district (Anonyms (2019).

MATERIAL AND METHODS

Extensive field survey was done to document ethnoveterinary practices which are used by ethno-veterinary medicine practitioners, rural and tribal people of Jalgaon Jamod & Sangrampur Taluka of Buldhana district resided near Ambabarva Wildlife Sanctuary. A survey sheet/ data sheet was carefully prepared for documentation. Weekly tours are organized with the local informants to observe the ethno-veterinary practices in rural as well as tribal areas of the region. Local or tribal people were interviewed in most formal way. The ethno-veterinary medicinal plant species will be collected during the field trips and will be brought to the laboratory. Plant species will be identified using standard floras (Naik, (1998); Sharma *et.al.* (1996); Singh & Karthikeyan, (2000); Diwakar & Sharma (2000); Singh *et al.,* (2001). Herbarium specimens were prepared and deposited in the Herbarium, N. E. S. Science College, Nanded.

RESULTS AND DISCUSSION

In present study, 25 ethnoveterinary medicinal plant species of 21 families have been recorded for their important ethnoveterinary medicinal practices in study area (Table 1, Fig. 2). The total of 68 informants were systematically interviewed at their local home places through convenience sampling. Among these 57 informants were old, young informants 11 were between the age of 30-45 years. The majority of informants were 80 years & above. During the interrogation it was observed that old & illiterate group herbal healers have more traditional knowledge than young and educated class. All the informants were interviewed in local languages. In collected information 1 shrub, 2 climbers, 11 herbs and 11 trees (Fig. 3).

Table 1: Medicinal plants and their traditional utility to treat various reproductive diseases of livestock in Jalgaon (J) & Sangrampur Tahsil

Sr. No.	Plant name/Local Name/Life Form	Family	Plant part used and mode of Administration
1	*Allium sativum* L Local Name-Lahsun (Herbs)	Amaryllidaceae	Bublets are given to cure anestrous condition
2	*Butea monosperma* (Lam.) Taub. Local Name-Palas (Tree)	Fabaceae	Flowers are given orally to retention placenta
3	*Colocasia gigantea* (Blume) Hook f. Local Name-Bramha Raksha (Herbs)	Araceae	Leaves Cake with Gram flour is given for pregnancy/ conceived 1/4th part of leaf along with jawar cake given in anestrous condition Leaves paste recommended Uterine prolapsed
4	*Commiphora wightii* (Arn.) Bhandari Local Name (Tree)	Burseraceae	Gum along with jaggery is given to cure anestrous condition
5	*Cyphostemma setosum* (Roxb.) Alston Local Name-Karmod Kand (Climber)	Vitaceae	Tuber paste recommended Uterine prolapsed
6	*Datura innoxia* Mill. Local Name-Dhotra (Herb)	Solanaceae	Fruits/seeds given to cure anestrous condition
7	*Dendrocalamus strictus* (Roxb.) Nees Local Name-Bambu (Tree)	Poaceae	Leaves are given orally to retain placenta
8	*Drimia indica* (Roxb.) Jessop Local Name-Ran kanda (Herbs)	Asparagaceae	Bulb paste recommended Uterine prolapsed
9	*Ficus benghalensis* L Local Name-Vad (Tree)	Moraceae	Young prop roots given to cure anestrous condition
10	*Hibiscus cannabinus* L Local Name-Ambadi (Herbs)	Malvaceae	Leaves + lawar cake/grains are given orally to retain placenta
11	*Limonia acidissima* Groff. Local Name-Kawat (Tree)	Rutaceae	Leaves +oil given orally to retain placenta
12	*Linum usitatissimum* L. Local Name-Jawas (Herbs)	Linaceae	Seeds are given orally to retain placenta
13	*Madhuca longifolia* (J. Koenig ex L.) J.F. Macbr. Local Name-Moha (Tree)	Sapotaceae	Flowers/ seeds are given orally to retain placenta
14	*Melia Azadirachta* L. Local Name-Bakana Neem (Tree)	Meliaceae	Leaves are given orally to retain placenta
15	*Mimosa pudica* L. Local Name-Lajalu (Herbs)	Fabaceae	Leaves paste recommended Uterine prolapsed
16	*Mirabilis jalapa* L. Local Name-Kalahari (Herbs)	Nyctaginaceae	Tuberous roots paste is applied to cure Uterine prolapsed
17	*Morus alba* L. Local Name-Tuti (Tree)	Moraceae	Leaves paste recommended Uterine prolapsed
18	*Pergularia daemia* (Forssk.) Chiov. Local Name-Utaran (Climber)	Apocynaceae	Leaves are given orally to retain placenta
19	*Phoenix dactylifera* L Local Name-Date palm (Tree)	Arecaceae	Seeds along with clove in wet flour given orally to retain placenta
20	*Ricinus communis* L. Local Name-Erandi (Shrub)	Euphorbiaceae	Leaves are given orally to retain placenta
21	*Striga angustifolia* (D. Don.) C. J. Saldanha Local Name-Taukala (Herbs)	Orobanchaceae	Seeds used in Pranayradhan (Sexual stimulation) i.e. anestrous condition
22	*Tectona grandis* L. f. Local Name-Sag (Tree)	Lamiaceae	Root along with jaggery is given to cure anestrous condition Seeds are given orally to retain placenta
23	*Tragia involucrata* L. Local Name-Aagya (Herbs)	Euphorbiaceae	Root is given along with jawar cake to cure anestrous condition Leaves paste recommended Uterine prolapsed
24	*Tridax procumbens* L. Local Name-Kamarmodi, Alguja (Herbs)	Asteraceae	Whole plant paste is applied to cure Uterine prolapsed
25	*Triticum aestivum* L. Local Name-Gahu (Herbs)	Poaceae	Sprouted grains are given to cure anestrous condition

Fig. 1 Photo plate : Medicinal plants used to treat various reproductive diseases of livestock in Jalgaon (J) & Sangrampur Tahsil

a. Colocasia *gigantea* (Blume) Hook f. **b.** *Datura innoxia* Mill. **c.** *Dendrocalamus strictus* (Roxb.) Nees
d. *Hibiscus cannabinus* L. **e.** *Mimosa pudica* L. **f.** *Phoenix dactylifera* L.
g. *Pergularia daemia* (Forssk.) Chiov. **h.** *Striga angustifolia* (D. Don.) C. J. Saldanha ***i.*** *Tectona grandis* L.f.

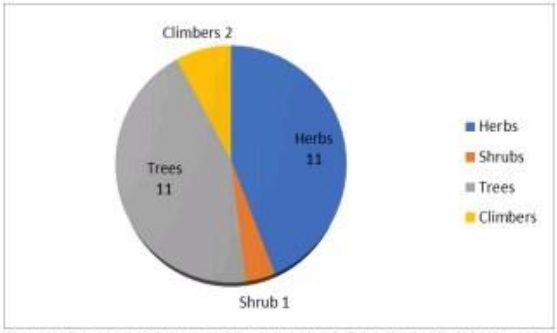


Fig. Pie Diagram: Shows habit diversity of Medicinal Plant species

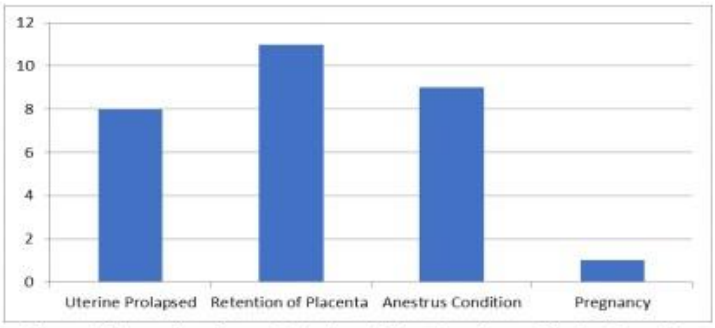


Figure: I Shows disorders and Number of Plant Species used by local people

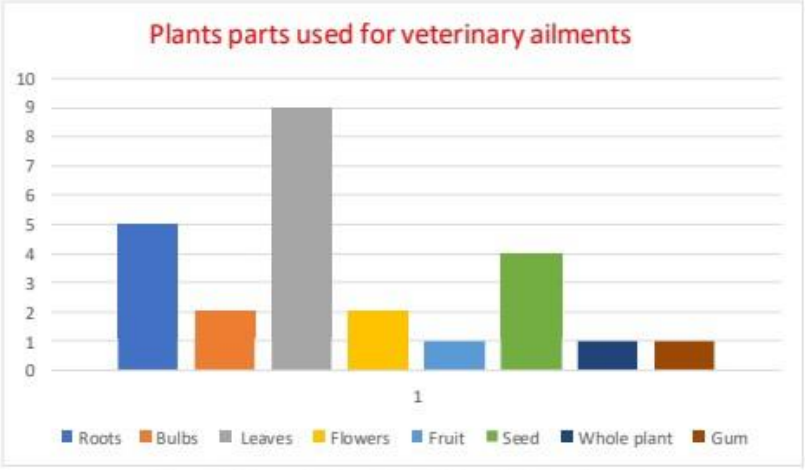


Figure: II Shows plants parts used for veterinary ailments.

Out of which plant's parts used for reproductive ailments were roots 5, bulbs 2, leaves 9, flowers 2, fruit 1, seed 4, whole plant 1 and other plant material as a gum 1 (Fig. 5). Disorders and Number of Plant Species used by local people are shown in Fig.4. Different herbal medicines are used by local herbal practitioners to treat their livestock in different regions of our country but some used herbal ingredients are common in many regions. Reproductive disorders are very dangerous and becoming worldwide health problem in livestock. Rather than synthetic drugs the herbal medicine play very effective role in reproductive ailments.

CONCLUSION

Medicinal herbs are used by the Ambabarva indigenous population to heal their livestock. 25 medicinal plants were used by the herbal healers to treat ailments related to reproduction. While the knowledge and applications of these plants have been mostly lost, farmers in isolated communities and (Adhivasi) folk men have managed to retain our ancient knowledge of ethno-veterinary treatment. Oral transmission is typically used to pass it on from generation to generation. Research into ethno-veterinary medicines has a wide range of opportunities. Important medicinal plants include *Pergularia daemia, Madhuca longifolia*, and *Hibiscus cannabinus* are beneficial for helping placenta retention. Most commonly used plants to treat anestrous conditions include *Tectona grandis, Tragia involucrata, Triticum aestivum, Ficus benghalensis*, and others. *Tragia involucrate, Morus alba*, and *Cyphostemma setosum* are used to treat uterine prolapses. The current work makes a significant contribution to preventing the extinction of

knowledge based on native flora. This information is extremely valuable and has to be shared widely in order to preserve and propagate medicinal plant species.

REFERENCES

Anonyms (2019) *20th Livestock and poultry census*, Maharashtra State, Commissionerate of Animal husbandry, Maharashtra State, Pune-67.

Diwakar P.G., Sharma B.D. (2000) *Flora of Buldhana district*, Maharashtra, India. BSI, Calcutta, India.

Kumar and Nagayya (2017) Utilization of ethno-veterinary medicinal plants in Hassan district of Karnataka, India, Inter. *Journal of Pharmacy and Pharma. Sciences*, 9, (4): 107-112

Marathe Vishal R, Prachi P. Kshirsagar and Prabha Y. Bhogaonkar (2010) Documentation of Traditional ethnoveterinary practices in Khamgaon taluka (Dist. Buldhana Maharashtra State). *Indian Journal of tropical Forestry*. 26 (2): 60 – 62.

Naik VN (1998) *Flora of Marathwada*, I & II, Amrut Prakashan, Aurangabad.

Patil DA, Patil PS, Ahirrao YA, Aher UP, Dushing YA (2010) Ethnobotany of Buldhana District (Maharashtra: India): Plants used in Veterinary Medicine. *Journal of Phytology*. 2010, 2(12): 22-34

Patil Rashika and Rothe SP (2017) Ethnoveterinary Practices by Tribals of nearby villages of Dnyanganga Wildlife Sanctuary, Buldhana Maharashtra. *World Journal of Pharmaceutical Research*. Vol. 6 (4): 1312-1318.

Pocchi V (2013). Ethno-veterinary medicinal plants and its conservation status in the Buldhana District. *J. Sci. Infor*., 6:44-47.

Sharma BD, S. Karthikeyan, and Singh NP (1996) *Flora of Maharashtra state*, Monocotyledons. Botanical Survey of India. Calcutta.

Singh NP and S. Karthikeyan (2000) *Flora of Maharashtra State*–Dicotyledons. Vol. I. Botanical Survey of India. Calcutta.

Singh NP, P Lakshminarasimhan, S. Karthikeyan and Prasanna PV (2001) *Flora of Maharashtra State* – Dicotyledons. Vol. II. Botanical Survey of India. Calcutta.

Acknowledgement

Authors are thankful to all herbal healers of Buldhana district for sharing the valuable ethnoveterinary information with authors. We are also thankful to the Principal, N. E. S. Science College, Nanded (M.S.), India for providing necessary facilities for the work. We are also thankful to Dr. O. G. Kutemate for kind help during the explorations.

Publisher's Note

IJLSCI remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Conflict of interest: The authors declare that they have no conflict of interest.

Publisher's Note

IJLSCI remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Correspondence and requests for materials should be addressed to Marathe V.

Peer review information

IJLSCI thanks the anonymous reviewers for their contribution to the peer review of this work. A peer review file is available.