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Research Article

Diversity of Ethno Medicinally Important Climbers in Kalwan Tehsil District Nashik (M.S)

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ABSTRACT

Climbers, Creepers and Lianas play an important role in the ecological dynamics of forest as well as socio-cultural and ethno medicinal utilization by various ethnic communities. The Kokana community comprises a substantial amount of population of Kalwan tehsil, which is fairly rich in biodiversity. The present paper deals with Diversity and ethno medicinal utilization of climbers, creepers and lianas from Kalwan tehsil. Excursions were carried out for assessment of plant wealth in different seasons to different places in the study area, plants were photographed, collected and herbarium were prepared by following Jain and Rao (1976). Vaid and common people were interviewed to know the medicinal utilization of the plants. During the study 38 genera were found to be used for various ailments and diseases. The study area is fairly rich in diversity medicinally important Climbers, Creepers and Lianas, many of them not recorded earlier from this area.

Keywords: Climbers, Ethno- medicine, Kokana community, Diversity**Article Info:** Received 23 June 2019; Review Completed 16 Aug 2019; Accepted 19 Aug 2019; Available online 25 August 2019**Cite this article as:**

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INTRODUCTION:

Climbers, creepers and Lianas play an important role in the ecological dynamics of forest. They are used in socio-cultural activities as a source of food, fodder and ethno medicines by various ethnic communities. The Kokana community comprises a substantial amount of population of Kalwan tehsil, which is fairly rich in biodiversity. The knowledge regarding the biodiversity of these climbers would prove useful in their sustainable utilization and conservation. The present paper deals with Diversity and ethno medicinal utilization of climbers, creepers and lianas from Kalwan tehsil.

Study Area: Kalwan tehsil lies in 20°29'25"N Latitude and 74°01'35"E Longitude, it is largely a hilly area with important peaks like Saptashrungi gad, Markandaya fort, One of the most important rivers in north Maharashtra – Girna flows through Kalwan tehsil. The tehsil is predominantly populated by scheduled tribes, the Konkan as being the largest ethnic community. The tehsil receives an annual rainfall of about 695 mm, the soil type being deep black, shallow black, medium black and coarse soil. The total area under forest is considerably high as compared to other tehsils of Nashik District. The tehsil is bounded by Sargana tehsil of Nashik District and Dang district of Gujarat state in the west, Satana towards north, Deola towards east and Chandwad and Dindori towards south.



Map: 1 Map of Nashik district showing kalwan Tehsil

MATERIAL AND METHODS

Excursions were carried out for assessment of plant wealth in different seasons to different ecological sites in the study area. Plants were photographed, collected and herbariums were prepared by following Jain and Rao (1976). Vaid and common people were interviewed to know the medicinal utilization of the plants.

RESULTS

Table:1 showing medicinal climbers with their local names, families and medicinal uses.

Sr.No.	Plant Name	Local name	Family	Medicinal uses
1	<i>Abrus Precatorius L.</i>	Chanoti,, Gunj, Rati	Fabaceae	Anti-Fertility
2	<i>Ampelocissus latifolia (Roxb.) Planch.</i>	Bender, Jungli Draksha	Vitaceae	Wounds Labour
3	<i>Aristolochia bracteolata Lam.</i>	Kidamar, Gandhati	Aristolochiaceae	Anthelmintic, joint pain, Hair softener
4	<i>Asparagus racemosus Willd.</i>	Shatavari, Divas-mauli, sasachigondi	Liliaceae	Galactagogue sexual disorder
5	<i>Aspidopteris cordata Heyne.ex Roth.</i>	Bokadvel, Ghatmol, Siricha - vel	Malpighiaceae	Treatment of eyes
6	<i>Cayratia trifolia.(L) Domin.</i>	Khandivel	Vitaceae	Diuretic, Astringent
7	<i>Cissampelos pareira L.</i>	Bhat-vel, Patha, Taniivel	Menispermaceae	Diarrhoea, Kidney disorder
8	<i>Cissus woodrowii (stapf.) Santapau</i>		Vitaceae	-
9	<i>Clematis gouriana Roxb.ex DC.</i>		Ranunculaceae	Skin diseases, Antiviral, Fungicide, Vesican
10	<i>Coccineagrands (L.) Voigt.</i>	Tendli, Tondvel, Chindole	Cucurbitaceae	Skin eruptions, Burns
11	<i>Combretum albidum D. Don</i>	Zellusi, Madbel, PivalVel, Bokadvel,Yeloshi	Combretaceae	Anthelmintic, Astringent, Burn
12	<i>Cryptolepis dubia (Burm.f.) Almeida</i>	Kali-kauli, Krishna-sariva	Periplocaceae	Rheumatism, Lactogenic
13	<i>Cryptostegia grandiflora R.Br</i>	Khabar-vel, Mothikauli, Vilayatvakhundi	Periplocaceae	Influenza
14	<i>Hemidesmus indicus var. Pubescens (Wt. & Arn.) HK.f</i>	Kaulichavel	Periplocaceae	Astringent, Tonic, Antipyretic.

15	<i>Cucumis setosus</i> Cogn.	Mekk	Cucurbitaceae	Toothache, Respiratory disorders
16	<i>Desmodium gangeticum</i> (L.) DC	Salparni, Salvan	Fabaceae	Ulcers, Swelling, Chronic fever.
17	<i>Dioscoria oppositifolia</i> L.	Medwan	Diascoriaceae	Swelling, Dysentery
18	<i>Dioscoria pentaphylla</i> L.	Paspoli, Sai, Ulshi	Diascoriaceae	Dysentery, fracture, jaundice, Burns.
19	<i>Wattaka volubilis</i> (L.f.) Benth.	-	Asclepiadaceae	Expectorent, Swelling with pus
20	<i>Gloriosa superb</i> L.	Kal- lavi, kadya nag, Bachnag, Flame lily	Liliaceae	Easy Delivery, and as abortifacient
21	<i>Hiptage benghalensis</i> (L.) Kurz	-	Malpighiaceae	Refrigerant, Expectorant, Anti-inflammatory, Asthma
22	<i>Leea macrophylla</i> Roxb.	Anderphod, Bender, Supad	Leeaceae	Antidiabetic, Wound healing
23	<i>Macrotyloma uniflora</i> (Lamk.) Vercourt.	Kulith, Jhir, senji	Fabaceae	Stomachic, Respiratory diseases, Urinary disorders
24	<i>Merremia aegyptia</i> (L.)		Convolvulaceae	Burns
25	<i>Momordica diocia</i> Roxb.	Kartola	Cucurbitaceae	Eye related problems, laxative, anthelmintic
26	<i>Mucuna pruriens</i> (L.) DC	Kaucha, kuili	Fabaceae	Sex. Met. Gynac. Skin disorder.
27	<i>Mukia maderaspatana</i> (L.) Roem	Karad-Kanguni, Galghugari, Golmekh	Cucurbitaceae	Boil, oral disorder, Expectorant.
28	<i>Paracalyx scariosa</i> (Roxb) Ali	Bakhala, Ran-ghevda	Fabaceae	Stomach problems and fever
29	<i>Pergularia daemea</i> (Forsk.) Chiv.	Utarani, Kurmuda, Rankaral	Asclepiadaceae	Menstrual problems, ulcers
30	<i>Rhynchosia minima</i> (L.) DC	Ghoshyachi- vel	Fabaceae	Piles and Abortifacient
31	<i>Rhynchosia rothii</i> Benth. ex Ait	-	Fabaceae	Nil
32	<i>Rivea hypocratififormis</i> (Desv.) Choisy	Phand-bhaji, Polichavel, Phanji, Phasvel	Convolvulaceae	Headache, Cough, skin disease, malaria, burns, piles and to relieve pain.
33	<i>Tinospora cordiflora</i>	Amrutvel, Gulvel	Menispermaceae	Gout, Diabetes, Hepatitis and fever
34	<i>Trichosanthes cucumerina</i> L.	Jungalipadval	Cucurbitaceae	Vermifuge, Stomachic, Laxative
35	<i>Trichosanthes tricuspidata</i> Lour.	Kavandal, Mukal, Kawalachaamba	Cucurbitaceae	Asthma, Sores, skin disorders
36	<i>Tylophora dalzellii</i> HK. f.	Kaulkim Kaval-vel, Nivali	Asclepiadaceae	Asthma, Carminative, Emetic, Expectorant
37	<i>Ventilago maderaspatana</i> Gaerth.	Sakavel, Khandvel, Lokhandi	Rhamnaceae	Dyspepsia, Skin diseases, Stimulant, Antidiabetic activity.
38	<i>Vigna dalzelliana</i> (O. Kuntze) Vercourt.	-	Fabaceae	Nil
39	<i>Vigna vexilata</i> (L.) A. Rich	Hauda, Halunda	Fabaceae	Cholera, Ulcers Joint disorders, arthritis, swellings in joints.
40	<i>Ziziphus rugosa</i> Lamk.	Toran, Churan	Rhamnaceae	Boils.

Table No.2 Showing number of medicinal climbers belonging to plant families

Plant family	No. of plants
Fabaceae	9
Vitaceae	3
Aristolochiaceae	1
Liliaceae	2
Malpighiaceae	2
Menispermaceae	2
Ranunculaceae	1
Cucurbitaceae	6
Combretaceae	1
Periplocaceae	3
Dioscoriaceae	2
Asclepiadaceae	3
Leeaceae	1
Convolvulaceae	2
Rhamnaceae	2

Graph: 1 Showing number of medicinal climbers per family

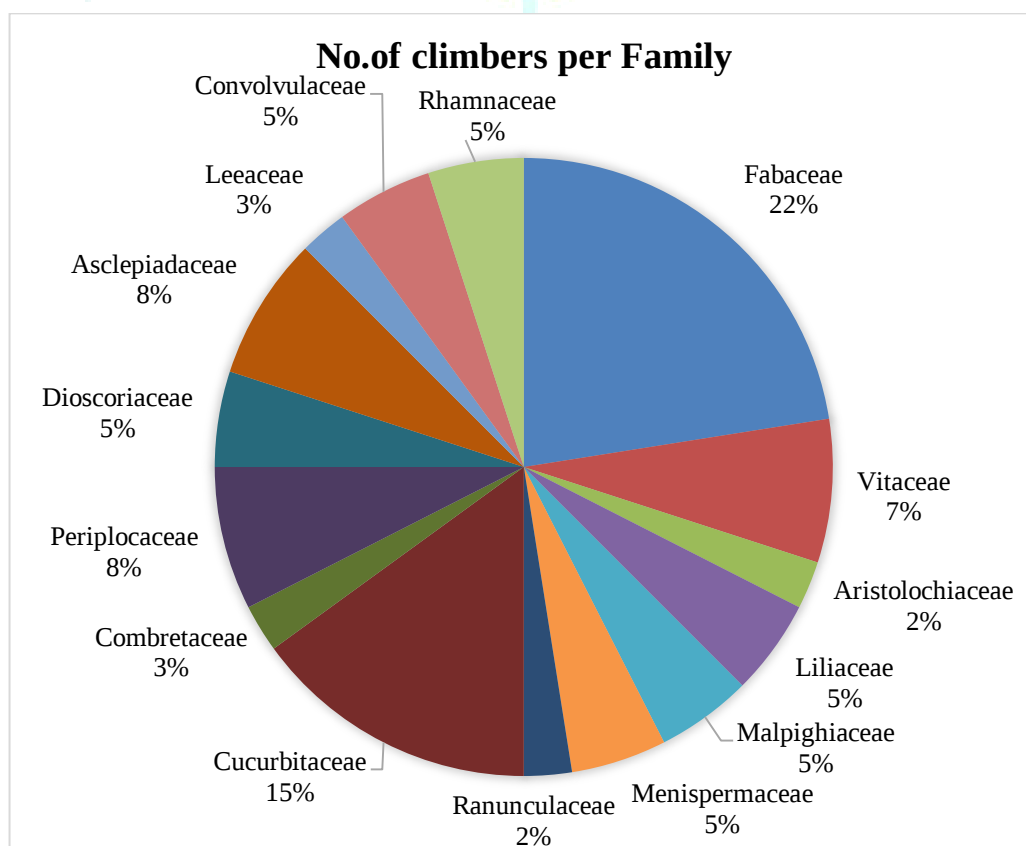
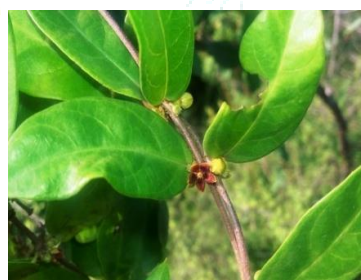
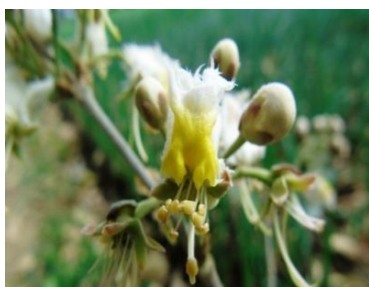
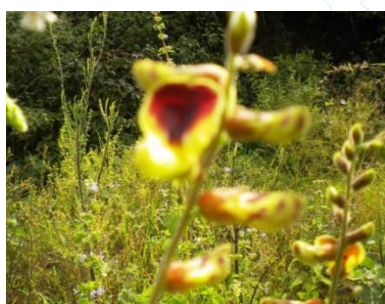
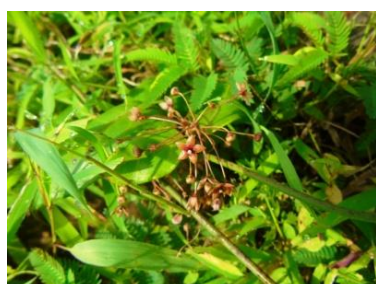


Photo plates of medicinal climbers:

*Abrus precatorius* L.*Aristolochia bracteolata* Lam*Aspidopteris cordata* Heyne.ex Roth*Cissampelos pareira* L. DC Santapau*Cissus woodrowii* (stapf.)*Clematis gouriana* Roxb.ex*Combretum albidum* D.Don (2)*Cryptolepis dubia* (Burm.f.) Almeida*Hemidesmus indicus* L.R.Br*Desmodium gangeticum* (L.) DC*Dioscorea oppositifolia* L.*Dioscorea pentaphylla* L.*Hiptage benghalensis* (L.) Kurz (2)*Leea macrophylla* Roxb (Lamk) Verdc*Macrotyloma uniflorum*

*Merremia aegyptia* (L.) Roem*Mucuna pruriens* (L.) DC*Mukia maderaspatana* (L.)*Paracalyx scariosa* (Roxb)*Pergularia daemea* (Forsk.)Chiv *Rhyncosia minima* (L.) DC*Rhyncosia rothii* Benth ex. Ait Choisy*Rivea hypocratifomis* (Desv.)*Tinospora cordifolia**Tylophora dalzellii* HK.f.*Ventila gomaderaspatana*Gaerth. *Gloriosa superba* L.*Zizyphus rugosa* Lamk.

DISCUSSION

Climbers belonging to thirty eight genera of sixteen families recorded from the study area were found to be used medicinally by the ethnic people of the area. Family Fabaceae being the family with the highest number of medicinally important genera followed by Cucurbitaceae. As these climbers are important for the treatments of various ailments and diseases, there is a need for conservation in their Natural habitat and further studies are necessary to study their density, abundance and Phytochemical importance. Ecological point of view which would be useful for their conservation and sustainable utilization so that they would be available for future generations.

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