AILMENTS/TREATMENTS RECORDED THROUGH ETHNOMEDICINAL SURVEY VIS-Á-VIS THE FLORA OF C.C.S. UNIVERSITY, MEERUT CAMPUS AND SURROUNDINGS

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Abstract: Indigenous knowledge about ethnomedicinal value of 109 plants out of submitted flora of Chaudhary Charan Singh University Campus and surroundings has been collected from local people living in the villages around the campus as well as people of Banjara Community living along the road side near the campus through questionnaire and personal interview method. Plants were arranged alphabetically according to their Botanical names, local/common names, family, plant parts used as well as ethnomedicinal applications. The analysis of the data interestingly pointed towards possible propensity of stomach disorders since ancient period in this region as most of the plants / plant parts have been used for treating stomach ailments. Besides, plants for treatment of Alzheimers', HIV and dengue in traditional knowledge are indicative of rich understanding of these ailments which are yet less understood. Local traditional knowledge can hence be used for advancement of treatments for sustenance of the race in changing times.

Keywords: Ethnomedicinal, flora, stomach disorders

INTRODUCTION

Plants have been used for medicinal purposes since time immemorial. India has a rich lineage of Ayurveda (Charak samhita, Sushrut samhita, Bhav Prakash Nighantu) followed by Unani, Homoeopathic and allopathic systems. Although new systems of treatment developed with time, yet the traditional knowledge can not be ignored in finding the basis of present pharmaceutical products for treatment of dreaded diseases. Hence the present study was aimed at bringing out the medicinal wealth of the existing and reported flora of a particular area, in terms of traditional knowledge.

STUDY AREA AND METHODOLOGY

The area under study includes Chaudhary Charan Singh University Campus and surroundings. The campus is situated on Vishwavidyalaya Marg about 5 Km. away from the city and is generally green with vegetation. The soil is sandy and summers start from the end of March followed by warm monsoon period extending upto October and thereafter the cold season begins. The climate is semi-arid due to significant difference in temperature and low rainfall. Standard methods for plant collection and preservation as well as those for ethnomedicinal studies were followed:

Specimen collection, identification and preservation-

Regular visits of the study area were organized for two continuous years in different seasons in order to explore the flora. Plant specimens were collected, identified, preserved, mounted and were maintained in the department of Botany, C.C.S. University, Meerut for reference[1] (mentioned as respective voucher numbers (VNMU) and in the Department of Botany, R.G. (PG) College, Meerut (mentioned as voucher numbers (VNRG) for future use. For identification, available flora [2-7] were consulted. This work was carried out for two continuous years as a result 425 species belonging to 265 genera representing 75 families of Dicotyledons and 10 families of Monocotyledons were enlisted. Present ethnomedicinal studies are based on the exploration of this flora with the help of Banjara community and local people including herbalists.

Collection of Ethnomedicinal Knowledge and Documentation-

For documentation of ethnomedicinal knowledge, questionnaire method was followed. Interviews of about eighty informers were conducted, which included local experienced elderly men and women residents of near by villages, peasants, farmers, herbalists, vaidyas, hakims, bhagats, folk medicine prescribers and people of Banjara Community residing on the road side in the vicinity of university campus. Documentation was done at the spot and plants were enlisted with their local names, family, plant part used and ethnomedicinal applications.

RESULT

Documented data was systematically arranged as follows to reach the conclusions regarding ethnomedicinal knowledge of existing plants as well as to evaluate the medicinal wealth of the flora of area studied. Plants have been arranged alphabetically according to their botanical names to make the further additions more convenient and to locate the particular plant in the list easily. Local and common names of the plants being the valuable sources of knowledge have been reported

emphatically to link with the knowledge about their ethnomedicinal value. (Table 1) Besides, ayurvedic/English terms have been used to report usage of plant part for treating the organ/system in human/cattle. Some of the terms frequently used are as follows:

1.	Aphrodisiac	6.	Gonorrhoea	11.	Sciatica	16.	Purgative
2.	Alopecia	7.	Diarrhoea	12.	Anodyne	17.	Intoxicant
3.	Dyspepsia	8.	Dysentry	13.	Dropsy	18.	Fistula
4.	Menorrhoea	9.	Antipyretic	14.	Expectorant	19.	Piles
5.	Spermatorrhoea	10.	Catarrh	15.	Abortifacient	20.	Ague

Table 1: List of plants collected with botanical and ethnomedicinal details

1.	*Abrus precatorius* L. (VNMU 62) Common Name : Ratti, Chontaly Family : Fabaceae Parts used : Leaves, root, seed Ethnomedicinal uses : Fever, cough, laxative, aphrodisiac, sciatica, alopecia
2.	*Abutilon indicum* (L.) Sweet (VNMU 29) (Fig. 1a) Common Name : Kanghi, Indian Mallow Family : Malvaceae Parts used : Leaf, flower and seed Ethnomedicinal uses : Piles, laxative, to increase semen in men
3.	*Acacia nilotica*(L.) Delile (VNRG 11) Common Name : Kikar, gum Arabic, babul Family : Mimosaceae Parts used : Bark, pods, leaves, gum Ethnomedicinal uses : Strengthens gums & teeth, twigs used as datun (natural tooth brush), bark for chronic dyspepsia
4.	*Achyranthes aspera* L. (VNMU 272) Common Name : Chirchitta, Latjeera, Chaff Plant Family : Amaranthaceae Parts used : Whole Plant, leaf, seeds Ethnomedicinal uses : Kidney problems, bleeding piles, healing of wounds, cough
5.	*Acmella oleracea L. (*VNMU 23) (Fig. 1b) Common Name : Akarkara,toothache plant Family : Asteraceae Parts used : Leaves, flower heads Ethnomedicinal uses : Toothache, dryness of mouth
6.	*Aegle marmelos* (Linn.) Correa (VNMU 48) Common Name : Bel Family : Rutaceae Parts used : Roots, bark, ripe fruits Ethnomedicinal uses : Digestive stimulation, piles, dysentery
7.	*Albizzia lebbeck* Benth. (VNMU 106) Common Name : Siris, shireesh Family : Mimosaceae Parts used : Bark, flowers, seeds Ethnomedicinal uses : Inflammations, boils, ulcers, leprosy, piles, infertility.
8.	*Allium sativum* L. (VNRG 30) Common Name : Lahsun, Garlic Family : Liliaceae Parts used : fleshy leaves Ethnomedicinal uses : Rheumatism, gout, sciatica, cardiac tonic
9.	*Aloe vera* (L.) Burm. F. (VNRG 37) (Fig. 1c) Common Name : Gwarpatha, Gheekunwar, Aloe, Ghritkumari Family : Liliaceae

	Parts used : Leaf Ethnomedicinal uses : Rheumatism, body weakness and in the treatment of pimples or acne, alopecia, menstrual troubles, diabetes, liver tonic, enlarged spleen
10.	*Alstonia scholaris* (L.) R.Br. (VNRG 40) Common Name : Sat-patia, Saptaparna, Chhatin, Dita Bark Family : Apocynaceae Parts used : Bark, Leaves Ethnomedicinal uses : Catarrhal fever, debility, earache,headache, asthma, to increase lactation, ulcer, astringent,antipyretic, chronic diarrhoea and dysentery
11.	*Alternanthera punjens* Kunth (VNMU 275) Common Name : Haglon/waglon, Kante wali santhi, Khaki weed Family : Amaranthaceae Parts used : Leaves, Fruits Ethnomedicinal uses : Itching, skin affections
12.	*Andrographis paniculata* Nees. (VNRG 44) (Fig. 1d) Common Name : Kalmegh Family : Acanthaceae Parts used : Whole plant Ethnomedicinal uses : Infantile liver and diorrhoea, cronic fever, dyspepsia, chronic dysentery
13.	*Annona squamosa* L. (VNRG 47) Common Name : Shareefa, Custard apple Family : Annonaceae Parts used : Leaves, seeds Ethnomedicinal uses : Diabetes, lice
14.	*Argemone maxicana* L. (VNMU 05) (Fig. 1e) Common Name : Satyanashi, Peeli Kanteeli Family : Papaveraceae Parts used : Leaves, seeds Ethnomedicinal uses : Skin diseases, dropsy, jaundice, anodyne, healing of wounds
15.	*Artemisia scoparia* Waldst. & Kit. (VNMU 144) Common Name : Jhahoo, Bano, Wormwood Family : Asteraceae Parts used : Whole Plant Ethnomedicinal uses : Treatment of burns, purgative
16.	*Asparagus racemosus* Willd (VNRG 50) Common Name : Satmuli, satavar Family : Liliaceae Parts used : Roots Ethnomedicinal uses : Rejuvenating, aphrodisiac, diuretic, carminative, appetizer, dyspepsia, diarrhoea, dysentery, antispasmodic, mental disorders, and rheumatism.
17.	*Avena sativa* L. (VNRG 58) Common Name : Oat, Jaun Family : Poaceae Parts used : Seeds Ethnomedicinal uses : Stress, skin affections, tonic
18.	*Azadirachta indica* Brandis (VNMU 51) Common Name : Neem Family : Meliaceae Parts used : Leaves, stem, bark Ethnomedicinal uses : Fever, Jaundice, skin infection, anthelmintic, enthatic, swelling of gum, snake bite
19.	*Bacopa monnieri* (L.) Pennell. (VNRG 63) (Fig. 1f) Common Name : Brahmi booti Family : Scrophulariaceae Parts used : Whole plant Ethnomedicinal uses : used in asthma, hoarseness of voice, memory enhancer
20.	*Barleria lupulina L.* (VNRG 68) (Fig. 1g) Common Name : Kalabansa, hophead Family : Acanthaceae

	Parts used: : Leaves Ethnomedicinal uses : Antiinflammatory,insect bites,chronic cough ,herpes simplex, Analgesic(external application),vertigo(inhalation)
21.	*Bauhinia variegata* L. *(* VNMU 100) Common Name : Kachnar Family : Caesalpiniaceae Parts used : Bark, flowers Ethnomedicinal uses : Tubercular glands, haemorrhage
22.	*Boerhaavia diffusa* L. (VNMU 269) Common Name : Punarnava, ghetuli Family : Nyctaginaceae Parts used : Whole plant Ethnomedicinal uses : Blood dysentery, piles, anemia, oedima
23.	*Bombax ceiba* L. (VNMU 39) (Fig. 1h) Common Name : Sembhal Family : Bombacaceae Parts used : Flowers, roots, bark and seeds, resin Ethnomedicinal uses : Diorrhoea, dysentery, blood purification, snake bite and gonnorrhoea.
24.	*Calotropis procera* R. Br. (VNMU 189) (Fig. 1i) Common Name : Ak, Sodom's Apple, Akha Family : Asclepiadaceae Parts used : Leaf, root-bark Ethnomedicinal uses : Expectorant, toothache, asthma, leprosy, earache
25.	*Cannabis sativa* L. (VNMU 315) (Fig. 1j) Common Name : Bhang, Indian Hemp Family : Cannabinaceae Parts used : Whole plant Ethnomedicinal uses : Antiinflammatory, anodyne, intoxicant, loss of appetite
26.	*Carica papaya* L. (VNRG 77) Common Name : Papeeta, Popaya Family : Passifloreae Parts used : Fruit, leaves Ethnomedicinal uses : Dyspepsia, diphtheria, ulcers & fissures of tongue, warts ,corns, psoriasis and chronic eczema of palms & hands, enlarged spleen and liver, dengue fever.
27.	*Carthamus oxycantha* M. Bieb. (VNMU 147) Common Name : Poli, Carthamus, Wild safflower Family : Asteraceae Parts used : Seed Ethnomedicinal uses : Seed powder is used to treat ulcer
28.	*Cassia fistula* L. (VNMU 101) Common Name : Amaltas, Golden Shower Family : Caesalpiniaceae Parts used : Root, bark, leaves, fruit pulp, seeds Ethnomedicinal uses : Laxative, purgative, rheumatism, glandular swelling, cough
29.	*Cassia occidentalis* L. (VNMU 103) Common Name : Kasond, Negro Coffee Family : Caesalpiniaceae Parts used : Roots, leaves, seeds Ethnomedicinal uses : Purgative, diuretic, incipient dropsy
30.	*Cassia tora* L. (VNRG 86) Common Name : Chakunda, Panevar, Taga Family : Caesalpiniaceae Parts used : Leaves, seeds, root Ethnomedicinal uses : Leprosy, ring worm, feverish attacks while teething in children
31.	*Catharanthus roseus* (L.) G. Don (VNRG 91) Common Name : Sada Bahar, Madagascar periwinkle Family : Apocynaceae Parts used : Leaves, flowers Ethnomedicinal uses : Diabetes mellitus

32.	*Centella asiatica* (L.) Urban. (VNRG 99) Common Name : Mandook-parni Family : Apiaceae Parts used : Leaves, flowers Ethnomedicinal uses : Revitalizing agent for brain, anti-viral
33.	*Chenopodium album* L. (VNMU 286) Common Name : Bathua, Goose Foot Family : Chenopodiaceae Parts used : Whole plant Ethnomedicinal uses : Jaundice, rheumatism
34.	*Cissampelos pareiera* L. (VNMU 03) Common Name : Patha Family : Menispermaceae Parts used : Roots and leaves Ethnomedicinal uses : Urinary troubles, root powder used to cure malaria, typhoid, general fever, leaf juice used to cure diphtheria, diarrhoea
35.	*Citrus limon* (L.) Burm. F. (VNRG 112) Common Name : Kagzi Nimboo, Lemon Family : Rutaceae Parts used : Fruit Ethnomedicinal uses : Diarrhoea, dysentery, dyspepsia, rheumatism, toothpowder for teeth diseases
36.	*Cleome gynandra* L. (VNMU 16) Common Name : Hulhul, Jakhya Family : Capparidaceae Parts used : Leaves, seeds and roots Ethnomedicinal uses : Typhus fever, pus formation in boils is prevented by leaves applied externally.
37.	*Cleome viscosa* L. (VNMU 17) Common Name : Jangli hurhur, Wild mustard Family : Capparidaceae Parts used : Root, leaves, seeds Ethnomedicinal uses : Wounds, earache &discharges, boils, seeds are anthelmintic, carminative
38.	*Convolvulus arvensis* L. (VNMU 199) Common Name : Hirankhuri, Vahri, Bind Weed, Morning glory Family : Convolvulaceae Parts used : Whole Plant Ethnomedicinal uses : Constipation, control of dandruff,
39.	*Convolvulus pluricaulis choisy* (VNMU 200) Common Name : Shankhpushpi Family : Convolvulaceae Parts used : whole plant Ethnomedicinal uses : Bed-wetting, sun-stroke, mental disorders, memory-enhancer, high blood pressure, obsessive compulsive disorder
40.	*Cordia dichotoma* Forst. (VNRG 131) Common Name : Lassora, Lissora Family : Boraginaceae Parts used : Fruits, seeds, leaves and bark Ethnomedicinal uses : Spermanorrhoea, swellings of testicles.
41.	*Cuscuta reflexa* Roxb. (VNMU 208) Common Name : Amar Bel, Akash Bel, Dodder Family : Cuscutaceae Parts used : Stem Ethnomedicinal uses : Paralysis, blood purifier, skin affections, hair treatment
42.	*Cymbopogon citratus(DC) Stapf.* (VNRG 142) Common Name : Lemongrass Family : Poaceae Parts used : Leaves Ethnomedicinal uses : Skin care, hypertension, aromatherapy
43.	*Cynodon dactylon* (L.) Pers. (VNRG 147)

	Common Name : Doob, Durba, Doorva, Couch grass Family : Poaceae Parts used : Whole Plant, root Ethnomedicinal uses : Treatment of wounds, catarrhal ophthalmia, stops bleeding, diarrhoea, dysentery, diuretic, dropsy, secondary syphilis
44.	*Cyperus rotundus* L. (VNRG 158) Common Name : Motha, Moothoo Family : Cyperaceae Parts used : Tuber, root Ethnomedicinal uses : Fever,diarrhoea,dysentery, indigestion, vomiting, cholera, scorpion sting.
45.	*Dalbergia sissoo* Roxb. Ex DC . (VNMU 73) Common Name : Shisham, Rosewood, Sissoo Family : Papilionaceae Parts used : Bark, leaves Ethnomedicinal uses : Nosebleed, menstrual troubles, leucorrhoea, leprosy, blood purifier, sciatica
46.	*Datura Stramonium* L. (VNRG 172) Common Name : Datura, Thorn Apple Family : Solanaceae Parts used : Root, leaves, seeds, flowers Ethnomedicinal uses : Gonorrhoea, insanity, asthma, catarrhal fever, skin affections,
47.	*Desmostachya bipinnata* (L.) Stapf. (VNMU 339) Common Name : Dhab,Tail Grass Family : Poaceae Parts used : Leaf Ethnomedicinal uses : Leaf decoction is used to treat fever, kidney, dysentery, menorrhoea
48.	*Digera arvensis* L. (VNRG 187) (Fig. 1k) Common Name : Tandla, Cotton weed, Kanjero Family : Amaranthaceae Parts used : Leaves Ethnomedicinal uses : Week bones, dyspepsia, laxative.
49.	*Dodonaea viscosa* Jacq. (VNRG 193) Common Name : Sanatha Family : sapindaceae Parts used : Leaf Ethnomedicinal uses : Dyspepsia, accessive menstrual flow and skin allergy
50.	*Drypetes roxburghii* (Wall.) Hurusawa. (VNRG 199) Common Name : Putranjiva Family : Putranjivaceae Parts used : Leaves, seeds and fruits Ethnomedicinal uses : Swollen throats of cattle
51.	*Eclipta prostrata* (L.) L. (VNMU 152) Common Name : Safed Bhangra, Bhringraj Family : Asteraceae Parts used : Leaf Ethnomedicinal uses : Leaf paste applied to treat allergy, catarrh of newly born children, ringworm, hair growth
52.	*Emblica officinalis* Gaertn. (VNRG 209) Common Name : Amla, Anvla Family : Euphorbiaceae Parts used : Fruits Ethnomedicinal uses : Opthalmia, laxative,hair growth, coolant
53.	*Eucalyptus citriodora* Hook. (VNMU 116) Common Name : Sofeda, Eucalyptus Family : Myrtaceae Parts used : Leaves Ethnomedicinal uses : Common cold,inhalent in chest congestion,wounds,bleeding gums
54.	*Euphorbia hirta* L. (VNMU 303) Common Name : Aam dodak, Doddak, Amaranth Family : Euphorbiaceae Parts used : Whole plant

	Ethnomedicinal uses : Cough, bronchitis, asthma
55.	*Ficus benghalensis* L. (VNMU 311) Common Name : Bargad, Banyan Family : Moraceae Parts used : Latex, bark, leaves, root Ethnomedicinal uses : Gonorrhoea, toothache, diabetes, leucorrhoea, cracked feet
56.	*Ficus religiosa* L. (VNMU 313) Common Name : Pipal, Sacred Fig Family : Moraceae Parts used : Bark, fruit Ethnomedicinal uses : Gonorrhoea, anal fistulae, cracked feet, asthma
57.	*Fumaria indica(Haussken Pugslay)* (VNMU 07) Common Name : Pitpapra, Shahtra, Indian Fumitory Family : Fumariaceae Parts used : Whole plant Ethnomedicinal uses : Fever, diarrhoea, vomiting, leucoderma, blood purifier, jaundice
58.	*Gymnema sylvestre* R.Br. (VNRG 225) Common Name : Gudmar, Madhunashini Family : Asclepiadaceae Parts used : Leaves, roots Ethnomedicinal uses : Diabetes, abdominal pain
59.	*Hibiscus esculentus* L. (VNRG 231) Common Name : Bhindi, Lady finger Family : Malvaceae Parts used : Fruit Ethnomedicinal uses : Diabetes
60.	*Hibiscus rosa-sinensis* L. (VNMU 31) Common Name : Gurhal, Shoe Flower, China Rose Family : Malvaceae Parts used : Flower, seeds, leaves Ethnomedicinal uses : Burning sensation and inflammation, menorrhagia, seeds for gonorrhea, leaves and petals for hair conditioning, irritable urino-genital tract
61.	*Hydrocotyle asiatica* L. (VNRG 237) (Fig. 1l) Common Name : Mandukparni, Brahmi Family : Umbelliferae Parts used : Leaves, stem Ethnomedicinal uses : Fever, Cough
62.	*Jatropha Curcas* L. (VNRG 240) Common Name : Jamalghota Family : Euphorbiaceae Parts used : Seeds Ethnomedicinal uses : Constipation, chronic bowel syndrome
63.	*Justicia adhatoda* L. (VNMU 233) Common Name : Vasaka, Adusa, Bansa, Kala Bansa Family : Acanthaceae Parts used : Leaves, wood ashes, flowers, fruits, roots Ethnomedicinal uses : Bronchitis, asthma, cough, jaundice, abortion, skin affections
64.	*Kalanchoe pinnata* (Lam.) pers. (VNRG 247) (Fig. 2a) Common Name : Dardmar, Patharkuchi, Parnabeej, Sprout leaf plant Family : Crassulaceae Parts used : Leaves, latex Ethnomedicinal uses : High blood pressure, asthma, urinogenital affections, stone, inflammation, sprain, insect bite, boils, dyspepsia, wound healing
65.	*Lantana indica Roxb.* (VNMU 256) Common Name : Lantana Family : Verbenaceae Parts used : Leaves Ethnomedicinal uses : Snake bite

66	*Leucas aspera* (Jacq.) Ait. f. (VNMU 263) Common Name : Jhumka booti, Dronpushpi Family : Lamiaceae Parts used : Leaves Ethnomedicinal uses : Scorpion sting, snake bite, dysentery, enlarged spleen and liver, skin affections
67.	*Mangifera indica* L. (VNMU 58) Common Name : Aam, Mango Family : Anacardiaceae Parts used : Leaf, seed, raw fruit pulp Ethnomedicinal uses : Nasal bleeding, earache, vomiting, sun stroke
68.	*Melia azedarach* L. (VNMU 53) Common Name : Bakain, Chinaberry, Vilayati Neem Family : Meliaceae Parts used : Leaf and fruit, bark thnomedicinal uses : Leprosy, scrofula, tapeworm
69	*Melilotus indicus* (L.) All. (VNMU 86) (Fig. 2b) Common Name : Banmethi, Sweet clover Family : Fabaceae Parts used : Whole plant Ethnomedicinal uses : Anticoagulant, Inflammation, wounds, haemorrhoids, varicose veins, seeds internally for bowel complaints, juice for eye sight improvement.
70.	*Mentha spicata* L. (VNRG 252) Common Name : Podina, Spear mint Family : Lamiaceae Parts used : Leaves Ethnomedicinal uses : Stomach ache, gas, nausea & vomiting
71.	*Mimosa pudica* L. (VNRG 261) Common Name : Lajvanti, Chhui-mui, Touch me not Family : Mimosaceae Parts used : Leaves, roots Ethnomedicinal uses : Hydrocoel, glandular swelling, piles, fistula
72.	*Mucuna pruriens* (L.) DC . (VNRG 269) Common Name : Kaunch Family : Fabaceae Parts used : Pods, seeds, roots, leaves Ethnomedicinal uses : Dropsy, scorpion sting
73.	*Murraya koenigii* (L.) spreng . (VNMU 50) (Fig. 2c) Common Name : Curry patta, Meetha neem Family : Rutaceae Parts used : Whole plant Ethnomedicinal uses : Mouth sores, vomiting, urticaria, diabetes
74.	*Murraya paniculata* (L.)Jacq. (VNRG 277) Common Name : Kamini Family : Rutaceae Parts used : Leaves and roots Ethnomedicinal uses : Blood disorders, skin diseases, leprosy,carminative, anthelmintic, purgative, diarrhoea and dysentery, tonic
75.	*Nerium indicum* Mill . (VNMU 185) Common Name : Kaner, Oleander Family : Apocynaceae Parts used : Root, leaves Ethnomedicinal uses : Ulcers, leprosy, scabies, snake bite
76.	*Nyctanthes arbortristis* L. (VNMU 180) Common Name : Harsingar Family : Nyctanthaceae Parts used : Leaves, flowers, bark Ethnomedicinal uses : Fever, rheumatism, piles

77.	*Ocimum basilicum* L. (VNMU 267) (Fig. 2d) Common Name : Sweet basil, Marua Family : Lamiaceae Parts used : Leaves, flowers, seeds Ethnomedicinal uses : Fever, catarrhal affections, infantile bowel complaints, gonorrhoea, dysentery, cancer
78.	*Ocimum sanctum* L. (VNRG 289) Common Name : Tulsi, Holy basil Family : Lamiaceae Parts used : Whole plant Ethnomedicinal uses : Cough, bronchitis, fever, cholesterol, blood pressure, heart problems, ring worm, earache
79.	*Oxalis corniculata* L. (VNMU 46) Common Name : Khatti booti, Changeri, Yellow oxalis Family : Oxalidaceae Parts used : Leaves Ethnomedicinal uses : Diarrhoea and dysentery, piles, prolapse of rectum, scurvy, datura intoxication, fever
80.	*Papaver somniferum* L. (VNRG 296) Common Name : Opium, Poppy Family : Papaveraceae Parts used : Latex from unriped pericarp, seed and fruit Ethnomedicinal uses : Delirium, insomnia, diarrohoea, dysentery, teathache, earache, nose-bleed, headache
81.	*Peperonica pellucida* Kunth. (VNRG 305) (Fig. 2e) Common Name : Shiny Bush Family : Piperaceae Parts used : Whole plant Ethnomedicinal uses : Joint pains, renal disorders, acne, abscesses, wound healing
82.	*Phyllanthus fraternus* Webster . (VNMU 307) Common Name : Bhoomi-amla, Bhuian anvala Family : Euphorbiaceae Parts used : Whole plant Ethnomedicinal uses : Liver disorders, chronic jaundice, hepatitis B & C, anti-HIV, Sores
83.	*Plumeria obtusa*. L. (VNRG 307) Common Name : Chelota Family : Apocynaceae Parts used : Flower Ethnomedicinal uses : Skin diseases, fever and ague
84.	*Plumbago zeylanica* L. (VNMU 173) (Fig. 2f) Common Name : Chitrak Family : Plumbaginaceae Parts used : Root, bark, leaves Ethnomedicinal uses : Liver and spleen disorders, digestion, piles, bronchitis
85.	*Prosopis cineraria* (L.) Druce . (VNRG 315) Common Name : Shami Family : Fabaceae Parts used : Flowers Ethnomedicinal uses : Safe pregnancy against miscarriage
86.	*Prunus Persica.stokes* . (VNMU 111) Common Name : Adu, Peeth Family : Rosaceae Parts used : Leaves Ethnomedicinal uses : Deworming
87	*Psidium guajava* L. (VNMU 117) Common Name : Amrood, Guava Family : Myrtaceae

	Parts used : Fruit & leaves Ethnomedicinal uses : Constipation and improvement of appetite, roasted fruit used for cough, leaves for deworming
88.	*Punica granatum* L. (VNMU 123) Common Name : Anar, Pomegranate Family : Punicaceae Parts used : Exocarp of fruit, root-bark Ethnomedicinal uses : Dysentery and menstrual irregularities, tapeworm
89.	*Rauwolfia serpentina* Benth. (VNRG 329) (Fig. 2g) Common Name : Sarpgandha Family : Apocynaceae Parts used : Whole plant Ethnomedicinal uses : High blood pressure, headache, sedative, snake bite, scorpion sting
90.	*Ricinus communis* L. (VNMU 309) Common Name : Arind, Castor Family : Euphorbiaceae Parts used : Seed, root Ethnomedicinal uses : Stomach and bowels problems, abortion
91.	*Rosa indica* L. (VNMU 113) Common Name : Gulab, Rose Family : Rosaceae Parts used : Flower and seed Ethnomedicinal uses : Eye disorders, constipation, skin rejuvenation
92.	*Sida cordifolia* L. (VNMU 35) Common Name : Kharainti, Country mellow Family : Malvaceae Parts used : Root, leaves, seeds Ethnomedicinal uses : Leucorrhoea, delivery pain, hydrocoel, spermatorrhoea, gonorrhoea, conception
93.	*Solanum nigrum* L. (VNMU 216) (Fig. 2h) Common Name : Makoe, Bhambolan, Night shade Family : Solanaceae Parts used : Leaf Ethnomedicinal uses : Dropsy, earache, hepatoprotective, relief in symptoms of AIDS
94.	*Solanum xanthocarpum* Schrad & Wendl . (VNRG 344) Common Name : Kantikari, Bhurangini, Neeli Katili Family : Solanaceae Parts used : Stem, flower, anther, fruits Ethnomedicinal uses : Cough, bronchial asthma, fever, pneumonia
95.	*Sonchus asper* (L.) Hill. (VNMU 164) (Fig. 2i) Common Name : Dodak Family : Asteraceae Parts used : Whole plant Ethnomedicinal uses : Paste applied on burns
96.	*Stellaria media* (L.) Vill . (VNMU 24) (Fig. 2j) Common Name : Chickweed Family : Caryophyllaceae Parts used : Aerial parts Ethnomedicinal uses : Wound healing, skin affections, arthritis, bronchitis
97.	*Stevia rebaudiana* L. (VNRG 359) (Fig. 2k) Common Name : Meethi Tulsi, Madhu Parni Family : Asteraceae Parts used : Leaves Ethnomedicinal uses : Zero calorie herbal sweetener, maintenance of weight and blood pressure.
98.	*Syzygium cumini* (L.) Skeels. (VNMU 118) Common Name : Jamun, Jambola Family : Myrtaceae Parts used : Seed, Fruit pulp, bark Ethnomedicinal uses : Diabetes, diarrhoea of children

99.	*Terminalia arjuna* (Roxb.) W. and A. (VNRG 370) Common Name : Arjun Family : Combretaceae Parts used : Leaves, bark, twigs Ethnomedicinal uses : spermatorrhoea and gonorrhoea, bark powder used as cardiac tonic, twigs used as datum
100.	*Terminalia bellerica* (Gaestn.) Roxb. (VNRG 371) Common Name : Bahera Family : Combretaceae Parts used : Fruits, bark and gum Ethnomedicinal uses : Cough, sore throat, hoarseness, constipation, ingredient of 'triphala'
101	*Terminalia chebula* Retz. (VNRG 372) Common Name : Harad Family : Combretaceae Parts used : Fruits, bark, gum, leaves Ethnomedicinal uses : Constipation, ingredient of 'triphala'
102.	*Tinospora cordifolia* (Willd.) Miers . (VNMU 04) Common Name : Giloe, Amrit Bel, Heart Leaved Moon Seed, Gulancha, Guduchi Family : Menispermaceae Parts used : Seed, stem Ethnomedicinal uses : Immunity, tuberculosis, fever, pyria, dengue fever, to increase blood platelets
103.	*Tribulus terrestris* L. (VNMU 45) Common Name : Gokhru, Puncture Vine Family : Zygophyllaceae Parts used : Whole plant Ethnomedicinal uses : Back pain, gonorrhoea, impotence, urinogenital affections
104.	*Vernonia cinerea* Less . (VNMU 168) Common Name : Somraj, Kali-jeeri, Vakuchi Family : Compositae Parts used : Leaves Ethnomedicinal uses : Tape worm, bed wetting
105.	*Withania somnifera* (L.) Dunal . (VNMU 219) (Fig. 2l) Common Name : Ashwagandha, Asgandh, Winter Cherry Family : Solanaceae Parts used : Whole Plant Ethnomedicinal uses : Old age debility, insomnia, memory enhancer in Alzheimer, tonic for nervous system, for rapid weight loss, protection from UV radiations
106.	*Xanthium strumarium* L. (VNMU 170) Common Name : Chhota Dhatura, Cocklebur Family : Asteraceae Parts used : Roots, fruits and seeds Ethnomedicinal uses : Smallpox, dysentery
107.	*Zea mays* (L.) . (VNRG 415) Common Name : Makai, Bhutta, Maize Family : Poaceae Parts used : Stigma Ethnomedicinal uses : Urinary tract disorders
108.	*Zingiber officinale* Roscoe . (VNRG 417) Common Name : Adrak, Ginger Family : Zingiberaceae Parts used : Rhizome Ethnomedicinal uses : Rheumatism, chest congestion, cough
109.	*Zizyphus jujuba* Gaertn. (VNMU 54) Common Name : Ber, Jujube Family : Rhamnaceae Parts used : Leaf, fruit, stem bark Ethnomedicinal uses : Diarrhoea, iron deficiency, hair growth and conditioning, skin infections with pus formation.

Plate 1

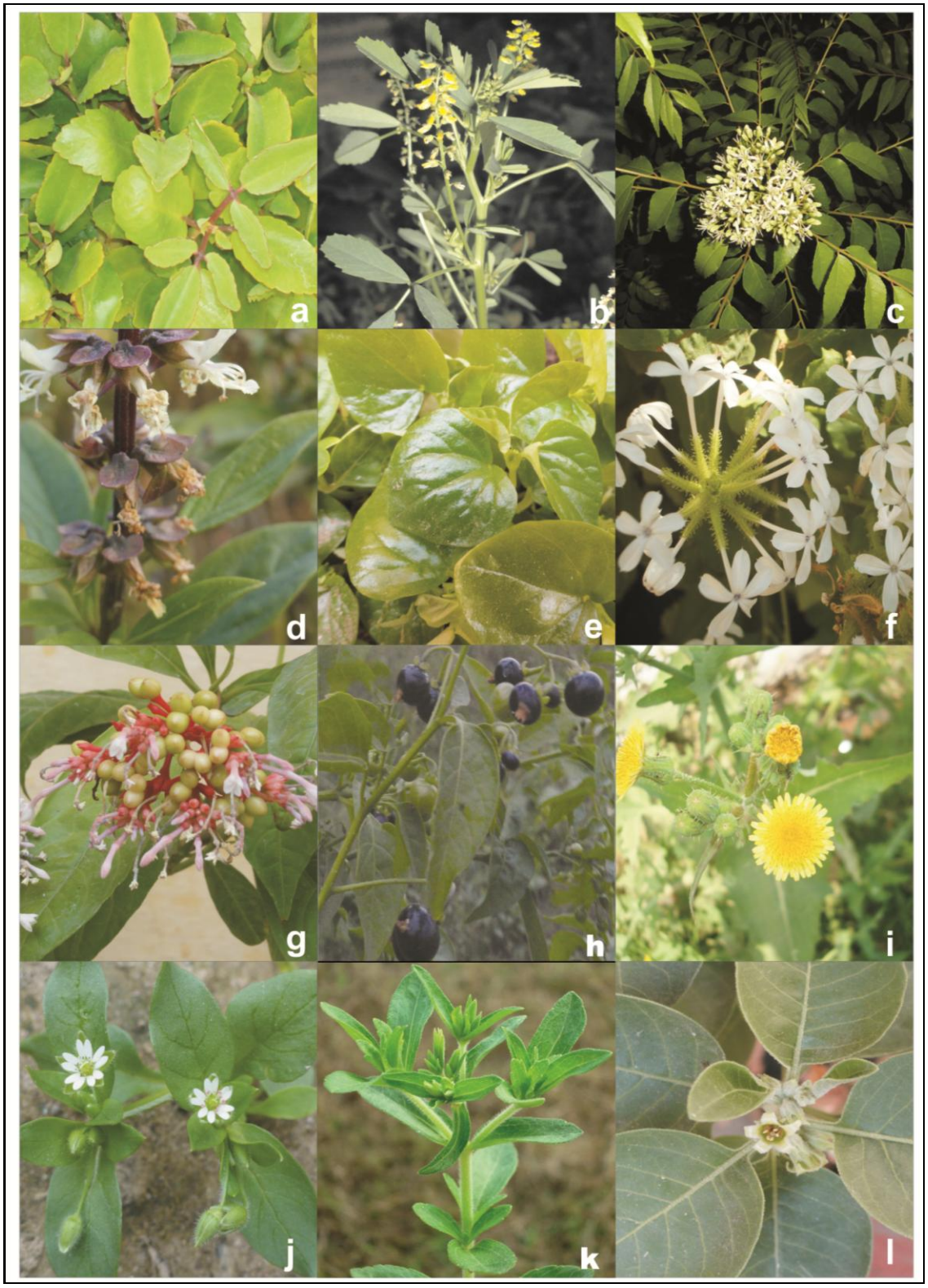

Plate 2

DISCUSSION AND CONCLUSION

The present study provides information regarding richness of medicinal plant wealth in and around CCS University Campus. Of the enlisted 109 taxa about 40% have been recorded to be useful in treatment of stomach and intestinal disorders, 15% in treatment of skin ailments, about 9% in various kinds of fevers (flu, typhoid, malaria), 9% in treatment of various kinds of inflammations/ulcerations, about 25% in treatment of ailments related to liver, kidney, heart, brain, lung, respiratory tract, genitals, eye and

ear. These diseases include the autoimmune types like rheumatism and diabetes, too. Interestingly, high number of taxa recorded, have been reported of being used for treating stomach/ intestinal disorders by traditional people. This is indicative of poor water or soil condition or may be eating habits of the region from ancient period. Not only that, it is an example to prove the myth that nature provides a cure for every ailment caused due to disbalance in resources, at the same location, where it is produced. It is also important to note that treatments to diseases like HIV, Alzheimer's, Obsessive Compulsive Disorder and Dengue have been reported by these traditional people, though the diseases are yet under the study of scientists. It may be gathered from the investigation that local traditional knowledge can hence be used for advancement of treatments for sustenance of the race in changing times.

The study also indicates that for medicinal preparations, maximum active principles are procured from leaves (~40%), followed by seeds, fruits, stem/bark, roots, whole plants and flowers. The exudates such as latex, gum or resin are used minimally compared to the plant parts. It needs to be understood and explored well, as to whether such high usage of leaves in traditional methods was due to abundance of the plant part causing least harm to the sustenance of the plant, or due to availability of higher amounts of bioactive therapeutic principles in leaves.

In general, ethnomedicinal studies have been published in the light of treatment of specific diseases[8] or specific plant part used for treatment of a variety of diseases[9] or traditional knowledge of specific tribes[10]. Present study is aimed at using and exploring the knowledge of available flora in the light of their traditional medicinal worth and increasing awareness towards conservation of the dwindling wealth. With passage of time, though several new species have been introduced in the study area, yet the multitude of loss of wild species and their worth cannot be ignored. Further studies are going on to bring out the medicinal index of the flora of the study area, the extent of conservation of species and strategies required for conservation of valued plants of the area.

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