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Taxonomic Census of Ethnomedicinally Important Plants of Hooghly District, West Bengal.

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ABSTRACT

Considering taxonomic study to be the most essential prerequisite for documenting medicinal plants in used by the ethnic communities of Hooghly district, West Bengal, the present authors could record 147 species belonging to 134 genera of 64 families of the Magnoliophyta (angiosperms) of which 133 species are Magnoliopsids (dicotyledonous) and 14 Liliopsids (monocotyledonous). At specific, generic, and family levels, dicots scored higher percentages of representation over monocots. Habit analysis of the ethnomedicinally used plants, thus recorded, shows the ratio of Herb: Shrub: Tree: Climber to be 66:32:31:18 which speaks of a wide range plant-forms in use. Values of generic and specific quota of each of the concerned families were found to be 2.09 and 2.49 respectively. Value of Jacard Generic Coefficient was determined to be 91.15 which reflect a taxonomic potential inadequate to render stability to the overall community. Since the value is close to 1, the per-genus species quota is expected to get augmented in future, thus diminishing the value, if the sustainability of their habitats is optimized.

Keywords: Ethnobotany, Taxonomic study, Magnoliophyta, Magnoliopsida, Liliopsids.

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INTRODUCTION

The ethnomedicine, an age-old therapeutic system, which is traditionally practiced among folk- and different tribal communities, has always been in India the matrix of such traditional systems as Ayurveda, Siddha, Unani and others. Unlike these texted and codified systems, the concept of ethnomedicines is transmitted here through generations orally in view of which, its documentation collaterally with stocktaking of the phyto-therapeutic resources and validation has been currently prioritized. In this context now-a-days taxonomic study is considered to be one of the most essential perspectives for documenting ethnobotanically explored medicinal plants. As such taxonomic census of medicinal plants and preparation of their databases in recent years has become one of the priority issues in our national agenda. In view of this the present work was undertaken in the different blocks, especially those dominated by tribal populations of Hooghly district.

Study Site

Hooghly District, covers an area of 3.149 sq km on the western bank of the river Hooghly, is bordered by the districts of Burdwan in the north, Bankura in the North-west, Midnapore in the South-west, Howrah in the south, and by the river Hooghly in east. Population of the district is about 5.5 million. The District has a typical monsoon type of climate with dry pre-monsoon (Mid-February to Mid-June), monsoon (mid-June to mid-October) and postmonsoon (mid-October to mid February) seasons. The annual mean temperature is 26.82 C. Maximum rainfall occurs during the monsoon in August and the average annual rainfall is above 1,500 mm. The district consists of four sub-divisions viz. Chinsurah, Chandannagar, Arambagh, and Sreerampur. All these sub-divisions consist of 18 blocks namely Goghat-I and II, Khanakul-I and II, Pursura, Arambagh, Chanditala-I and II, Jangipara, Tarakeswar, Haripal, Singur, Dhaniakhali, Polbadadpur and Panduah were surveyed for documenting ethnomedicines.

MATERIALS AND METHODS

Ethnobotanical surveys were carried out since 2009 in the study site mainly covering the tribal dominated villages and following standard methods (Rao, 1989). Information was collected by conducting structured questionnaire based interviews of such knowledgeable informants as the as traditional healers, middle-aged housewives, senior wise men. Concerned plant specimens were identified on the basis of taxonomic work-out and consultation of literature [1, 3 and 10]. The websites of the International Plant Names Index (IPNI), The Plant List and Tropicos were also consulted for updating nomenclature. Publications relevant to the ethnomedicinal perspectives of the present work were also consulted [2, 4, 5, 6, 7, 9, 11] to reveal the novelty of the medicinal uses thus documented. The Jacard's Generic Coefficient [8] of the study site was determined after identification of the plant species to get an indication of trend of the microclimatic status of the areas sustaining the ethnomedicinal plants by the following formula:

Generic Coefficient= [No. of genera/No. of species] x 100

RESULTS & DISCUSSION

The present authors could record 147 species belonging to 134 genera and 64 families of the Magnoliophyta (angiosperms) of which 133 species are Magnoliopsids (dicotyledonous) and 14 Liliopsids (monocotyledonous) [Table-1]. Habit analysis of the ethnomedicinally used plants, thus recorded, shows the ratio of Herb: Shrub: Tree: Climber to be 66: 32:31:18 having a percentile ratio of 44.89: 21.76: 21.08: 12.24 which speaks of a wide range plant forms in use [Table-2 and Fig.-1]. At specific, generic, and family levels, dicots scored higher percentages of representation over monocots. Values of generic and specific quota of each of the ethnomedicinally utilized families are 2.09 and 2.49 respectively [Table-3 and Fig.-2]. Value of Jacard Generic Coefficient was determined to be 91.15 [Table-3] which reflects a rather inadequate taxonomic potential to render stability to the overall community. The species quota of the etnomedicinally used genera is more than 1, which seems to be encouraging.

Table-1: An account of the documented plant species along with their local names, parts used, utilitarian pattern and curative properties.

Scientific name & family.	Local name	Plant parts used	Mode of administration	Disease cured
<i>Abelmoschus moschatus</i> Medik., Malvaceae	Latakasturi	Seed	Paste	Itching
<i>Abroma augusta</i> (L.)L.f., Sterculiaceae	Ulotkombol	1.Root 2.Seed	1. Oral administration 2. Paste	1.White dysentery 2. Itching
<i>Abrus pulchellus</i> Thwaites, Papilionaceae	Swet kunch	Root	Decoction	Neck pain
<i>Abutilon indicum</i> (L.)Sweet, Malvaceae	Potari	Leaves	Extraction	One sided headache, Cardiac stimulant
<i>Acacia farnesiana</i> (L.)Willd., Mimosaceae	Guyebabla	Root	Decoction	Child fever
<i>Acalypha hispida</i> Burm.f., Euphorbiaceae	Sibjata	Whole plant	Extraction	Bleeding from lungs
<i>Achyranthes aspera</i> L., Amaranthaceae	Apang	1.Root 2.Inflorescence 3.Leaves	1.1.Infusion 1.2.Paste 1.3.Oral consumption 2. Body contact 3.Extraction	1.1.1.Dysentery 1.1.2.Taeniasis 1.1.3.Acidity 1.2.1.Piles 1.2.2.Kidney problem 1.3.Diabetes 2.Jaundice 3. Swellings
<i>Aegle marmelos</i> (L.)Corrêa , Rutaceae	Bel	1.Stem bark 2.Fruits	1.Decoction 2.Eaten raw	1.Antidote to snakebite 2.Chronic dysentery
<i>Aerva javanica</i> (Burm.f.)Juss.ex Schult., Amaranthaceae	Lal bishakarani	Root	Dust	Antidote to snakebite
<i>Allium cepa</i> L., Liliaceae	Piyaj	Edible modified root	Extraction	Constipation
<i>Allium sativum</i> L., Liliaceae	Rasun	Bulb	Pills	Arthritis
<i>Aloe barbadensis</i> Mill. , Liliaceae	Ghritakumari	Leaf	Infusion	Extra fat degradation
<i>Alstonia scholaris</i> (L.) R.Br., Apocyanaceae	Chhatim	Milky Latex	Directly applied	Teeth pain
<i>Amaranthus spinosus</i> L., Amaranthaceae	Kanta-Note	Root	Chewed	Dysentery
<i>Andrographis paniculata</i> (Burm.f.)Nees., Acanthaceae	Kalmegh	Leaf	Infusion , Pills	Liver problem, anaemia
<i>Antigonon leptopus</i> Hook.& Arn., Polygonaceae	Anantalata	Root tubers	Decoction	Pulmonary obstruction
<i>Argemone mexicana</i> L., Papaveraceae	Sialkanta	Root	Paste	Infectious skin disease
<i>Aristolochia indica</i> L., Aristolochiaceae	Ishermul	Root	Paste	Antidote to snakebite
<i>Artemisia vulgaris</i> L., Asteraceae	Nakdana	Leaves	Extraction	Menstrual Obstruction
<i>Averrhoa carambola</i> L., Avertroaceae	Kamranga	1.Ripe fruit 2.Leaf	1. Extraction 2.Decoction	1. Biliary liver colitis 2.Chronic fever
<i>Ayapana triplinervis</i> (Vahl.)R.M.King & H.Rob., Compositae	Ayapan	Leaf	Extraction	Piles
<i>Azadirachta indica</i> A. Juss., Meliaceae	Neem	1.Leaf 2. Root	1.Dust, paste, chewing, decoction	1.Pain during menstruation, Itching,

			2. Decoction	Diabetes, Blood purification 2. Wound washing
<i>Bacopa monnieri</i> (L.)Wettst., Scrophulariaceae	Brahmi	Leaf	Fried	Loss of memory
<i>Barleria lupulina</i> Lindl., Acanthaceae	Bishaylakaroni	Leaf	Extraction	Earache
<i>Bauhinia acuminata</i> L., Caesalpiniaceae	Swet kanchan	Leaf	Decoction	Malaria
<i>Bombax ceiba</i> L., Bombaceae	Shimul	Root	Infusion	Nightmare
<i>Bryophyllum pinnatum</i> (Lam.) Oken, Crassulaceae	Pathar kuchi	Leaf	Paste, ointment	Tumour, septicaemia
<i>Cajanas cajan</i> (L.) Millsp., Papilionaceae	Arahar	Whole plant	Decoction	Gall bladder stone
<i>Calotropis gigantea</i> (L.)Dryand., Asclepiadaceae	Sada akondo	Leaf	Ointment	Eye drop
<i>Canna indica</i> L., Cannaceae	Kalabati	Flower	Paste	Eye disease
<i>Carica papaya</i> L., Passifloraceae	Penpe	Latex	Chewed, directly taken	Teeth problem
<i>Carissa carandas</i> L., Apocynaceae	Karamcha	Fruit	Decoction	Billious problem
<i>Cassia fistula</i> L., Caesalpinae	Bandarlathi	Fruit-pulp	Decoction	Tonsilitis
<i>Cassia sophera</i> L., Caesalpiniaceae	Kalkasunda	Root bark	Fried	Malignant ulcers
<i>Catharanthus roseus</i> (L.) G. Don., Apocyanaceae	Nayantara	1. Leaf 2. latex	1. Paste 2. Directly applied	1. First stage of cancer 2. Cancerous wound
<i>Cayratia pedata</i> (Lam.) Gagnep., Vitaceae	Goyalelata	Leaf	Paste	Ulcer
<i>Celosia argentea</i> L., Amaranthaceae	Morogphul	1. Flower 2. Root	1. Decoction 2. Chewed	1. Menstrual disorder 2. Body pain
<i>Centella asiatica</i> (L.)Urb., Apiaceae	Thankuni	Leaf	1. Decoction 2. Infusion 3. Chewed	1. Acute and chronic dysentery 2. Hepatic disorder 3. Dysentery
<i>Cereus pterogonus</i> L., Cactaceae	Tesira manasa	Leaf	Infusion, paste	Snake bite, Bone fracture
<i>Chenopodium ambrosioides</i> L., Chenopodiaceae	Beto shak	Leaf	Paste	Ulcer
<i>Cinamomum tamala</i> Nees., Lauraceae	Tezpata	Leaf	Paste	Nervous disorder
<i>Cissus quadrangularis</i> L., Vitaceae	Harjora	Twig	Body Contact	Bone fracture
<i>Citrus acida</i> Roxb. , Rutaceae	Patilebu	Fruit	Decoction	Billious vomiting
<i>Cleome viscosa</i> L., Capparidaceae	Holud hurhure	Leaf	Paste	Asthma
<i>Clerodendron viscosum</i> Vent., Verbenaceae	Vet	1, Leaf 2. Root	1. Decoction 2. Dust	1. Itching, eczema 2. Taeniasis
<i>Clitoria ternatea</i> L., fabaceae	Aparajita	Root	Paste, Decoction	Infertility, Colitic pain
<i>Coccinia grandis</i> (L.)Voigt., Cucurbitaceae	Telakucha	Leaf	Extraction	Acute dysentery
<i>Coix lacryma-jobi</i> L., Graminae	Kori gachh	Seed	Paste	Immuno- enhancer
<i>Commelina benghalensis</i> L., Commelinaceae	kansira	Whole plant	Paste	Leprosy
<i>Corchorus olitorius</i> L.,	Mithapat	1. Root	1. Decoction	1. Diarrhoea

Tiliaceae		2.Capsules	2.Paste	2. Swellings abscess
<i>Crotalaria pallida</i> Aiton , Papilionaceae	Jhunjhuni	Root	Decoction	Stomach disorder
<i>Crozophora plicata</i> , Euphorbiaceae	Kshudi okra	Root bark	Decoction	Bronchitis
<i>Curcuma amada</i> Roxb., Zingiberaceae	Amada	Rhizome	Paste	Asthma
<i>Curcuma longa</i> L., Zingiberaceae	Halud	Rhizome	Extraction	Allergy
<i>Cymbopogon winterianus</i> Jowitt ex Bor, Graminae	Kashraj	Leaf	Ointment	Infectious wounds
<i>Cynodon dactylon</i> (L.)Pers., Poaceae	Durba	Root	Paste	Snake Bite
<i>Cyperus rotundus</i> L., Cyperaceae	Muthaghas	Bulb	Decoction	Constipation
<i>Dalbergia sissoo</i> DC., Fabaceae	Sishoo	Stem-bark	Infusion	Leprosy and scabies
<i>Datura fastuosa</i> L. , Solanaceae	Kalo dhutra	Root	Chewed	Cough and fever
<i>Datura metel</i> L., Solanaceae	Sada Dhutura	1. Leaf 2. Fruit	1. Paste 2. Extraction	1. Skin disease 2. Dandruff
<i>Dillenia indica</i> L., Dilleniaceae	Chalta	Leaf	Paste	Gall bladder stone
<i>Diospyros discolor</i> Willd., Ebenaceae	Bilati gab	Stem bark	Decoction	Dysentery
<i>Ecbolium viridae</i> (Forssk.) Alston., Acanthaceae	Nil basak	Roots	Paste	Jaundice
<i>Eclipta prostrata</i> (L.) L., Asteraceae	Keshote	1. Whole plant 2. Root	1. Decoction 2. Decoction	1. Conjunctivitis 2. Kidney pain
<i>Emblica officinalis</i> Gaertn. Euphorbiaceae	Amloki	Fruit	Chewed, Infusion	Cold and cough, conjunctivitis
<i>Enhydra fluctuans</i> Lour., Asteraceae	Helencha	Stem	Extraction, infusion, Decoction	Loss of eye sight, dysentery, diabetes
<i>Euphorbia tirucalli</i> L., Euphorbiaeae	Jatalanka	Whole plant	Extraction	Leprosy
<i>Ficus benghalensis</i> L. , Moraceae	Bat	1. Stilt root 2. Stem-bark	1. Infusion 2. Decoction	1. Stomach disorder 2. Dysentery
<i>Ficus racemosa</i> L. , Moraceae	Jaggya Dumur	1. Stem-Bark 2. Fruit	1. Body contact 2. Fruit	1. Fever 2. Diabetes
<i>Ficus religiosa</i> L., Moraceae	Aswatha	Root	Dust	Leucoderma
<i>Gardenia resinifera</i> Routh., Rubiaceae	Hing	Latex	Dust	Male sex problem
<i>Glycosmis pentaphylla</i> (Retz.)Dc., Rutaceae	Dantan	Root	Chewing, decoction	Antidote to snakebite, Jaundice
<i>Heliotropium indicum</i> L., Boraginaceae	Hatisur	Leaf	Ointment, Paste	Conjunctivitis, antidote to insect poison
<i>Hemidesmus indicus</i> (L.)R.Br.ex Schult, Asclepiadaceae	Anantamul	Root	Ointment	Allergic sensation of hands and legs
<i>Hibiscus mutabilis</i> L., Malvaceae	Sthala padma	1. Bud 2. Leaves	1. Paste 2. Paste	1. Gonorrhoea 2. Burn injury
<i>Hibiscus rosa-sinensis</i> L., Malvaceae	Jaba	Flower-bud, flower	1. Decotion, fried 2. Pills	1. Irregular menstruation, excess bleeding during menstruetion 2. Pain during menstruation

<i>Holarrhena pubescence</i> (Buch. Ham.) Wall., Apocynaceae	Kurchi	Stem-bark	Paste, Dust	Liver problem, dysentery
<i>Hygrophila auriculata</i> (Schumach.) Heine, Acanthaceae	Kulekhara	Leaf	1. Infusion 2. Decoction	1. Liver problem 2. Anaemia
<i>Ipomoea aquatica</i> Forssk., Convolvulaceae	Kalmi shak	1. Flower 2. Whole plant	1. Extraction 2. Ointment	1. Eye disease 2. Leucoderma
<i>Ipomoea purpurea</i> (L.) Roth, Convolvulaceae	Morning glory	Whole plant	Decoction	Purgative and antisyphilitic
<i>Jatropha curcus</i> L., Euphorbiaceae	Gab varenda	1. Latex 2. Leaf	1. Directly used 2. Decoction	1. Teeth pain 2. Ulcer
<i>Justicia adhatoda</i> L., Acanthaceae	Basak	Leaf	Decoction	Cold and cough
<i>Lablab purpureus</i> (L.) Sweet Fabaceae	Sim	Leaf	Ointment	Eczema
<i>Lagenaria vulgaris</i> , Cucurbitaceae	Lau	Seed	Paste	Tuberculosis
<i>Leucas aspera</i> (Willd.) Link, Lamiaceae	Dronpuspa	1. Root 2. Flower	1. Paste 2. Flower	1. Asthma 2. Cold and cough
<i>Lippia nodiflora</i> , Verbanaceae	Kalindi	Leaf	Paste	Eye disease
<i>Ludwigia peruviana</i> (L.) H. Hara, Onagraceae	Bon labonga	Whole plant	Paste	Dysentery
<i>Mangifera indica</i> L., Anacardiaceae	Aam	1. Stem-bark 2. Root	1. Infusion 2. Decoction	1. Jaundice 2. Uterus hemorrhage
<i>Mesua ferrea</i> L., Clusiaceae	Nageswar	Flower	Dust	Piles
<i>Mimosa pudica</i> L., Mimosaceae	Lajjabati	Root	Paste, Extraction	Piles, Anti hemorrhagic
<i>Mirabilis jalapa</i> L., Nyctaginaceae	Sandhyamani	Tuber	Paste	Carbuncles
<i>Momordica charantia</i> L., Cucurbitaceae	Karola	Fruit	Extraction	Tape warm infection
<i>Morinda augustifolia</i> Roxb., Rubiaceae	Daruhidra	Stem-bark	Paste, Dust	Jaundice, Cirrhosis of liver
<i>Moringa oleifera</i> Lam., Moringaceae	Sajina	1. Leaf 2. flower	1. Decoction 2. Eaten raw	1. Blood sugar 2. Asthma
<i>Mucuna pruriens</i> (L.) Dc., Fabaceae	Alakusi	Seed	Decoction	Used to treat coma patient
<i>Murraya koenigii</i> (L.) Spreng., Rutaceae	Karipata	Leaf	Infusion	Dyspepsia
<i>Murraya paniculata</i> (L.) Jack, Rutaceae	Kamini	Leaf	Paste	Inflammation
<i>Musa paradisiaca</i> L., Musaceae	Kantali kala	1. Leaf 2. Seeds	1. Extraction 2. Paste	1. Tuberculosis 2. Taeniasis
<i>Nelumbo nucifera</i> Gaertn. Nymphaeaceae	Padma	Seed	Pills	Madness
<i>Nerium oleander</i> L., Apocynaceae	Karabi	1. Root-bark 2. Stem bark	1. Paste 2. Decoction	1. Piles 2. Scabies
<i>Nyctanthes arbortristis</i> L., Oleaceae	Seuli	Leaf	Infusion	Taeniasis, fever
<i>Nymphaea rubra</i> Roxb. ex Andrews, Nymphaeaceae	Lal saluk	Seed	Pills	Madness
<i>Ocimum canum</i> Sims., Lamiaceae	Bon-Tulsi	Root	Decoction	Colitis
<i>Ocimum gratissimum</i> L., Lamiaceae	Ram tulsi	1. Root 2. Leaf	1. Decoction, infusion, dust, ointment 2. Chewed	1. Nervous disorder, dyspepsia, white discharge, conjunctivitis 2. cold and cough

<i>Oldenlandia corymbosa</i> L., Rubiaceae	Kshet papra	Whole plant	Decoction, Paste, Infusion	Colitis, Biliary fever, Jaundice
<i>Opuntia dillenii</i> (Ker Gawl.)Haw., Cactaceae	Manasa	Fruit	Baking	Whooping cough
<i>Oxalis corniculata</i> L., Oxalidaceae	Amrul	1. Leaf , 2. Whole plant	1. Chewed, 2. Extraction	1. Stomach disorder 2. Cold and cough
<i>Paedaria scandens</i> (Lour)Merrill. , Rubiaceae	Gandal pata	1. Root, 2. Leaf	1. Paste 2. Decoction	1. antidote to snake bite 2. Chronic dysentery
<i>Pandanus amaryllifolius</i> Roxb., Pandanaeae	Payaspata	Leaf	Paste	Ulcer
<i>Peltophorum pterocarpum</i> (DC.)K.Heyne, Caesalpiniaeae	Radhachura	Stem bark	1. Ointment 2. Paste	1. Eye conjunctivitis 2. Dysentery
<i>Pentapetes phoenicea</i> L., Sterculiaceae	Dupuremoni	1. Flower 2. Fruit	1. Extraction 2. Decoction	1. Septic wounds 2. Cough and Fever
<i>Piper betle</i> L., Piperaceae	Pan	Leaf	Paste	Haemorrhage
<i>Piper longum</i> L., Piperaceae	Pipul	Fruit	Chewed	Gastric ulcer
<i>Plumeria rubra</i> L., Apocyanaceae	Dolonchampa	Latex	Poultice	Antihaemorrhagic
<i>Polygonum hydropiper</i> L., Polygonaceae	Panimarich	1. Whole plant 2. Root	1. Paste 2. Extraction	1. Urinary tract infection 2. skin infection
<i>Psidium guyajava</i> L. , Myrtaceae	Peyara	Leaf	Decoction	Pyorrhoea
<i>Punica grantum</i> L., Punicaceae	Dalim	Root-bark	Infusion	Enlarged liver
<i>Quisqualis indica</i> L., Combretaceae	Malatilata	Flower	1. Dust 2. Decoction	1. Diabetes 2. Diarrhoea
<i>Rauvolfia serpentina</i> (L.) Benth.ex Kurz., Apocyanaceae	Sarpagandha	1. Root 2. Leaf	1. Decoction, paste 2. Decoction	1. Poison eating , dysentery 2. Pneumonia
<i>Ruellia tuberosa</i> L., Acanthaceae	Bakargach	1. Whole plant, 2. Leaf	Decoction	1. Gall bladder stone 2. Chronic bronchitis
<i>Saraca asoca</i> (Roxb.)Willd., Caesalpiniae	Ashok	Stem-bark	Decoction, Eaten raw, Extraction	Pain during menstruation, Blood discharge, Irregular menstruation
<i>Scoparia dulcis</i> L., Scrophulariaceae	Bondhone	Leaf	Infusion, Dust	Blood dysentery, Renal stone
<i>Sesbania sesban</i> (L.)Merr., Fabaceae	Jayanti	Leaf	Paste, decoction	Hairfall, Early stage of cancer
<i>Shorea robusta</i> Gaertn., Dipterocarpaceae	Sal	Stem bark	Paste	Increase breast milk after child birth
<i>Sida rhombifolia</i> L., Malvaceae	Swet berela	Root	Decoction	Intermittent fever
<i>Solanum nigrum</i> L., Solanaceae	Kakmachi	1. Fruit 2. Roots	1. Infusion 2. Extraction	1. Arthritis 2. Urinary disorder
<i>Streblus asper</i> Lour., Moraceae	Shaora	Bud	Chewed	Intermittent fever
<i>Strychnos nuxvomica</i> L., Loganiaceae	Kuchila	Seed	Pills	Nervous breakdown
<i>Syzygium cumini</i> (L.) Skeels., Myrtaceae	Jam	Seed	Dust	Diabetes
<i>Tamarindus indica</i> L., Fabaceae	Tentul	Seed	Dust	Urinary tract infection
<i>Tephrosia purpurea</i> (L.)Pers., Fabaceae	Nil Basak	Leaf	Decoction	Cholera

<i>Terminalia arjuna</i> (Roxb.ex Dc.)Wight & Arn., Combretaceae	Arjun	1.Root 2.Stem-bark	1. Paste 2. Orally taken, Paste, Infusion, dust	1.Leucorrhoea 2. Diabetes, dyspepsia, jaundice, cardiac problem
<i>Terminalia bellirica</i> (Gaertn.)Roxb., Combretaceae	Bahera	1. Stem-bark 2. Fruit	Ointment	1.Leucoderma 2. Leprotic wounds
<i>Terminalia chebula</i> Retz., Combretaceae	Haritoki	Seed	Body contact	Small Pox
<i>Thespatia populnea</i> L. Sol.ex corrêa Malvaceae	Paras pipal	Seed	Ointment	Infectious skin disease
<i>Thevetia peruviana</i> (Pers.) K. Schum., Apocyanaceae	Kolke	1.Fruit 2.Seed	1.Ointment 2.Body contact	1. Eczema 2. Hydrocoel
<i>Thunbergia grandiflora</i> (Roxb.ex Rottl.)Roxb., Acanthaceae	Nil lata	Leaf	Decoction	Stomach disorder
<i>Thysanolaena maxima</i> , Poaceae	Phool jharu	Root	Extraction	Mouth sore
<i>Tinospora sinensis</i> (Lour.)Merr., Menispermaceae	Padma gulancha	1.Twig 2. Leaf	1.Infusion, 2.Dust	Diabetes
<i>Tragia involucrata</i> L., Euphorbiaceae	Bichuti	Root	Body contact	Bone fracture
<i>Trianthema portulacastrum</i> L., Aizoaceae	Swet Punornava	Leaf	decoction	Kidney problem
<i>Typhonium trilobatum</i> (L.)Schott, Araceae	Kharkon	1.Tubers 2. roots	1.Decoction 2. paste	Cirrhosis of liver 2.Tumour
<i>Urena lobata</i> L., Malvaceae	Ban-okra	Root	Decoction	Hydrophobia
<i>Vitex negundo</i> L., Verbanaceae	Nishinda	Leaf	Paste, Dust	Inflammation, arthritis
<i>Wedelia chinensis</i> (Osbeck) Merr., Asteraceae	Bhringaraj	Leaf	Dust	Hairfall
<i>Withenia somnifera</i> (L.)Dunal, Solanaceae	Aswagandha	Root	Dust	Nervous disorder
<i>Zizyphus mauritiana</i> Lam., Rhamnaceae	Kul	Leaf	Burnt	Asthma

Table 2. Habit analysis of the concerned plant species.

Habit	Total No. of plants	Percentile Value
Herb	66	44.89
Shrub	32	21.76
Tree	31	21.08
Climber	18	12.24

Table 3. Taxonomic Analysis of the angiosperms concerned with the traditional ethno-medico-botanical knowledge.

Taxon		Magnoliophyta				Dicot : Monocot	Species quota for each family	Species quota for each genus	Genus quota for each family	Generic Coefficient
Specification	No.	Magnoliopsids		Liliopsids		8.14:1	147/64 =2.29	147/134 =1.09	134/ 64 =2.09	=100*G/S =100*134/ 147 = 91.15
Family	64	Total	%	Total	%					
Genus	134	57	89.06	7	10.93					
Species	147	121	90.29	13	9.70					
		133	90.47	14	9.52	9.5:1				

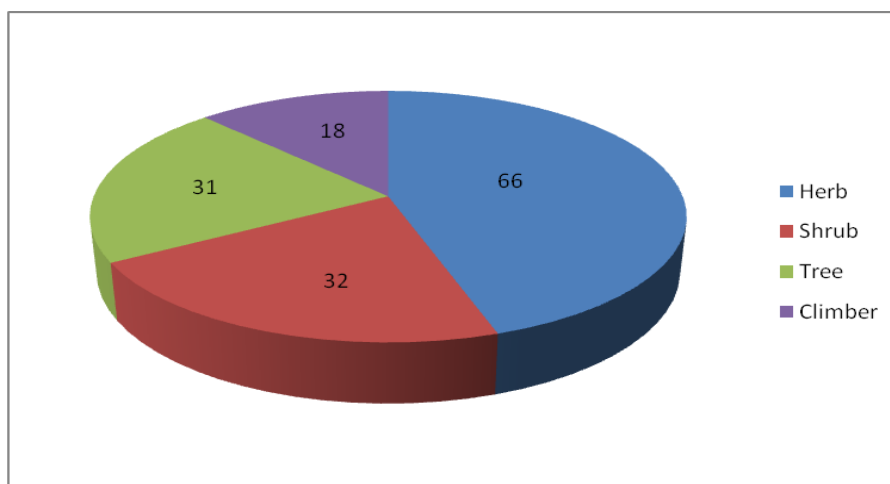


Fig.1 Habit analysis of the documented plant species

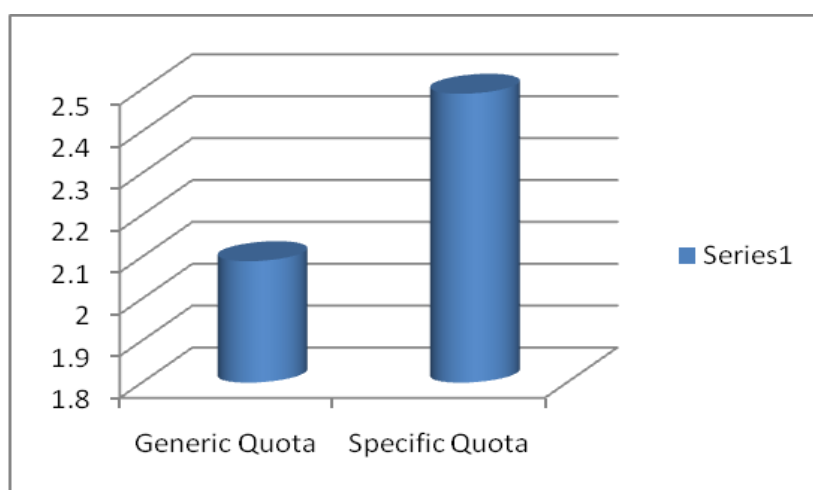


Fig.-2. Comparative analysis of the specific and generic quota of the concerned families.

CONCLUSION

In ethnomedicine a wide taxonomic spectrum of angiosperms is utilized covering 147 species of 134 genera belonging to 64 families. Magnoliopsids are used to a greater extent than Liliopsids. Since the generic coefficient is quite close to 1.00, from the utilization pattern one may apprehend atleast a decreasing trend in the stability of the overall community. The per-genus species quota, so far utilization pattern is concerned, is more than 1 and the flora seems to be resourceful, the sustainability of which must be optimized.

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