

Elements of Ethnotaxonomy in Dhule and Nandurbar Districts (Maharashtra)

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Keywords

Abstract

Dhule and Nandurbar Districts Ethnotaxonomy Dhule and Nandurbar districts of Maharashtra are mainly inhabited by tribals and rural folks. The author's ethnobotanical and floristic forays in these districts brought out certain elements of ethnotaxonomy like ethnotaxonomic markers, classifications, principles of nomenclature and exomorphic features. The facts gathered indicated that the people in the area are fairly flooded with reckonable elements of ethnotaxonomy. And 22 ethnotaxonomic markers are identified. These are evaluated and discussed pertinently in this paper.

1. Introduction

Science of plants is indeed embedded in human history, and human nature has been taught many different things by force of circumstances itself. Darwinism changed the mental fabric of human-beings. This is/was so because of new outlook, keen and close observations of nature. A remarkable turn to observations and reason-mindedness helped the science of botany in general and plant taxonomy in particular in later periods. Plant taxonomy is one of the earliest of all botanical disciplines. This aspect, which started as a folk taxonomy in the early 15th century, has in recent times, developed into a multidisciplinary new systematics.

As the science of plant taxonomy is on ascending spirals since last few centuries, the science of folk taxonomy or ethnotaxonomy has perforce been placed on descending spirals. The experience, knowledge and observations of nature by unlettered peoples throughout the world have been thereby overlooked. During the last few decades, it is being revived (cf. Berlin, 1976; Berlin et al., 1973, 1974; Brown, 1972, 1976). Gogai and Borthakar (1996) paid attention to ethnic plant classification and nomenclature in northeastern This aspect of ethnobotany has largely Such lacunae have been remained untouched. indicated in critical reviews by Jain and Srivastava (2001) and Jain (2002). The present communication is an attempt to fill in this lacuna.

Study Area

The erstwhile Dhule district of the state of Maharashtra (India) has been divided recently into two districts viz., Dhule and Nandurbar. These two districts stretche between the meridians of longitudes 73°47' and 75°11' east and between the parallels of latitudes 20°38' and 22°3' north (Map-1).

They cover the land area of 13.150 sq.km. There are total 1523 villages, of which 871 villages are predominantly inhabited by tribals such as Pawara, Kokani, Bhil and Vanjari. The north-western bordering area is studied with hilly terrain of Satpura mountain. The forests are chiefly dry deciduous. The Tapi is the main river with its many tributaries in the region. It joins Arabian sea at Surat in the state of Gujarat. The average rainfall in the region is 740.7 mm. Rainy, winter and summer are the main seasons in a year (Anonymous, 1974, 1985).

Map 1. Map of Maharashtra showing Dhule and Nandurbar Districts



The People and Language

These districts have predominantly Hindu population, which are mainly agrarian. They are inhabited by few tribes *viz*; Pawara, Kokani Bhil and Vanjari. Pawara habit mostly in Satpura

mountain and adjacent area. They are distinctive in respect of their customs, rites, gods and goddesses, and dialect 'Pawari'. It has the impact of Gujarati, Rajasthani and Hindi languages, besides other dialects such as Bhili (Bhilori), Ahirani and Marathi (State language). Another main tribe in the area is Kokani (or Konkana Kunbis). They are immigrants from Konkan region of Maharashtra state. They speak 'Kokani' dialect which is mixture of Marathi, Hindi, Arabi and with some Kokani (language in Konkan region) peculiarities. Vanjari are also inhabitants of this region. Vanjari were moving about in the forest. It is denoted also in their caste name. In modern times, they have settled down and adapted language/dialect Originally they belong wherever they settled. Rajasthan State.

Bhils are the largest and the oldest indigenous tribe of Western India. Their dialect 'Bhili' is cognate of Marathi, Gujarathi (adjacent state language of Gujarat State) and Hindi. They differ in their religious beliefs and practices. Their excellence in archery is appreciable, which is also denoted in their name of caste (Bhil, Beel or Billa

which mean bow). This brief linguistic review clearly suggests that the languages or dialects in these districts are intimately connected with each other in their development. The plants (animals as well) have got names, in this part of the state of Maharashtra, most commonly used by all tribal and rural folks. They only differ in the matter of pronunciation but appeared to this author based on the similar criteria and principles (Anonymous, 1974, 1985).

2. Methodology

Earlier the present author surveyed these districts floristically for about a decade (Patil, 2003). The present in-depth study especially was possible due to personal knowledge of these languages and most dialects, author being denizen of this region. Obviously, standard floristic methods are followed for such a study but with a particular emphasis on linguistic approach. The bases of coining plant names were enquired at least from 8-10 informants during last two decades. The results of such study are being presented in this paper.

Ethnotaxonomic Markers

(A) Habit

(I) 'Wel' signifies climber/lianas

a) Amarwel : Cuscuta chinensis Lamk.
b) Chandwel : Convolvulus arvensis L.
c) Borwel : Ipomoea pes-tigridis L.

d) Gulwel : *Tinospora cordifolia* (Willd.) Miers.

e) Kandwel : Cissus quandragula L.
f) Vasanwel : Cocculus hirsutus (L.) Diels
g) Aswel : Ventilago denticulata Willd.
h) Turyawel : Paracalyx scariosa (Roxb.) Ali

i) Gathyawel : Aspidoptorys cordata (Decne & Wall.) A.Juss.

j) Morwel : Clematis gouriana Roxb. ex DC.

(II) 'Zad' signifies tree habit

a) Bhutzad : Cassine albens (Retz.) Kosterm.

b) Buchachezad : Millingtonia hortensis L.f.
 c) Sindhichezad : Phoenix sylvestris (L.) Roxb. (Tadichezad)

d) Sonkhairichezad : Acacia polycantha Willd.

(III) 'Gawat' signifies wild/weedy small plants

a) Gathe-gawat : Leucas cephalotes (Koenig ex Roth) Spreng.

b) Gajar-gawat : Parthernium hysterophorus L.
 c) Gidhad-gawat : Aristolochia bracteolata Lamk.

(B) Habitat

a) Ghatbor : Ziziphus glaberrima (Edgew.) Sant.

Ghat-hilly areas; plants of mountains/hilly places

b) Bhuiringani : Solanum virginianum L.

Bhui-soil, ground; plants spreading on ground

c) Bhuimug : Arachis hypogea L.

Bhui-soil, ground; plants growing near ground

d) Bhuiumbar : Ficus hispida L.

Bhui-soil, ground, plants growing near ground.

e) Pankanda : Crinum defixum Ker.-Gawl.

Pan-water; plants found in water-logged places

f) Panthari : Eichhornia crassipes (Mart.) Solms.

Pan-water; Thari-cream; plant floating on water.

g) Pankanis : Typha domingensis Pers.

Pan-water; plants growing in water or marshy places.

h) Khadak-shepu : Glossocardia bosvellea (L.f.) DC.

Khadak-rocks; plants growing on rocks.

i) Khadak-payar : Ficus abnottiana (Miq.) Miq.

Khadak-rocks; plants growing on rocky places

(C) Exotic Plants: Vilayati/Mogali signify foreign country

a) Vilayati-dhotra (Bilayachi) : Argemone mexicana L.

(Native of Mexico)

b) Vilayati-chinch : Pithecellobium dulce (Roxb.) Benth.

(Native of tropica America)

c) Vilayati-sher : Pedilanthus tithymaloides (L.) Poit.

(Native of Florida to Venzuela)

d) Vilayati-babul : Parkinsonia aculeata L.

(Native of tropical America)

e) Mogali-erand : Jatropha curcas L.

(Native of tropical America)

(D) Wild Relatives of Cultigens: Jangli/Ran or Kadu signify wild status

a) Jangli-bhendi : Abelmoschus manihat (L.) Medik.

Relative: Abelmoschus esculentus (L.) Moench.

b) Jangli-kela : Ensete superbum (Roxb.) Cheesm.

Relative: Musa paradisiaca L.

c) Jangli-suran : Amorphophallus commuttatus (Schott.) Eng.

Relative : Amorphophallus campanulatus Blume

d) Ran-draksha : Ampelocissus latifolia (Roxb.) Planch.

Relative: Vitis vinifera L.

e) Ran-shewga (Kadu- : Mora

Shewga)

: Moringa concanensis Nimmo ex Dalz. & Gibs.

Relative:Moringa oleifera Lamk.

) Kadu-dodka : Luffa acutangula (L.) Roxb. var.amara (Roxb.) Clarke

Relative : L. acutangula (L.) Roxb. var. acutangula

(E) Life Pattern:

a) Amarwel : Cuscuta chinensis Lam.

Amar-unlimited; plant parasitic and thriving for long period.

b) Jeevrakhya : Vanda tassellata (Roxb.) Hook. ex G. Don

Jeev-life; plants protecting their life by growing on other plants.

c) Besharmi : *Ipomoea carnea* Jacq. ssp. fistulosa

(Mart. ex Choisy) Austin Besharmi-shameless;

plants thought 'Shameless' since they grow anywhere

(F) Leaves: Features indicative of peculiarity of foliage

a) Kuwali-pate : Limnophila indica (L.) Druce Variously dissected leaves

b) Pungalina-pala : Ipomoea obscura (L.) Ker.-Gawl.
Plants with leaves and tubed flowers

c) Khadak-shepu : Glossocardia bosvellea (L.f.) DC.

Dissectal leaves like Anethum graveolens L., which is locally

called 'Shepu'.

d) Pathri : Launea procumbens (Roxb.) Ramayya & Rajgopal

Peculiar shape and radical condition of leaves.

(G) Flowers: Ful, Fuli/Phuli means flower

a) Fulara : Lagasca mollis Cav.

b) Shiriful
c) Udhanfuli
d) Sadaphuli
d) Holostemma ada-kodien Schult.
d) Trichodesma indicum (L.) Lehm.
d) Catharanthus roseus (L.) G.Don

(H) Fruits: Fruit features restricted to the species.

n) Phuga : i) Cardiospermum halicacabum L.

ii) Physalis minima L.

Fruits ballon-like due to inflated calvees.

b) Papda (Sanjari) : Holoptelea integrifolia (Roxb.) Planch.

Fruits flat and circular like 'Papad' or 'Sanjari' the food articles.

c) Abhui-sheng : Canavalia gladiata (Jacq.) DC.

'Sheng' denotes dry, elongated capsular or leguminous fruit.

d) Bawa-sheng : Cassia fistula L.

'Sheng' denotes dry, elongated capsular or leguminous fruit.

e) Bondara : Lagerstroemia parviflora Roxb.

Bond denotes dry, rounded capsular fruit.

Nana-Bondara : Lagerstroemia microcarpa Wight.

Bond denotes as above but it is smaller.

g) Ran-bhendi : Abelmoschus manihot (L.) Medik.

Bhendi denotes capsular fruits

h) Chunch : Corchorus aestuans L.

Fruits are beaked

i) Bhavara : *Ipomoea turbinata* Lag.

Bhavara-inverted conical-shaped toy; fruits are so shaped.

j) Khajal : Mucuna pruriens (L.) DC.

Khaj-irritant; Fruits are stinging

k) Chiktya : Desmodium gangeticum (L.) DC.

Fruits stick to the clothes of passers- by

l) Mhatari : i) Calatropis procera (Ait.) R. Br.

ii) Calatropis gigantean (L.) R. Br.

'Mhatari' signifies white-hair; comose seeds composed so

m) Rodge (Rodgi) : i) Grevia tiliifolia Vahl

ii) Grewia villosa Willd.

(Fruits rounded like 'Rodge' or 'Rodgi', a local food article)

n) Karanj : Pongamia pinnata (L.) Pierre

Fruits flat and nearly lunar-shaped like 'Karanj', a local

sweetmeat.

o) Kumbhi : Careya arborea Roxb.

Globose fruits are collared by persistent calyx, rendering shape

of a 'Kumbh', a water-pot.

(I) Underground Parts: Kand means underground part

a) Kand : Dioscorea bulbifera L.

b) Kadua-kand Dioscorea bellophylla (Prain) Haines

Vas-kand Dioscorea hispida Dennst. c)

Kand denotes tuber or bulb. All these bear underground

tubers, the latter two prefixed differently.

Spiny or Thorny Structures: Kat/Kath means spine/thorn

Securinega leucopyrus (Willd.) Muell. - Arg. a) Kateri-pichrun

(Branch endings spine-tipped)

b) Kathilyo Argemone mexicana L. (Plants spiny) Hibiscus trionum L. (Plants strigose) c) Kateri-atti d) Kate-sawar

Salmalia malabarica (DC.) Schott.

(Trunks and branches studded with pointed tubercles) Echinops echinatus Roxb. (Plants spiny)

f) Kateri-matla Amaranthus spinosus L. 'Matla' refers to Amaranthus viridis L. This

species bears resemblance to it but have spines.

(K) White Latex: Dudh means milk, latex being white

Dudhi Euphorbia hirta L., E.prunifolia L., E.thymifolia Jacq. a)

Dudhali Euphorbia cyathophora Murr. b) c) Dudhkudi Wrightia tinctoria R. Br.

d) Dudhkhuri (Dudhalo) Wrightia arborea (Dennst.) Mabb. e) Chambar-dudhali Pergularia daemia (Forsk.) Chiov. f) Dudhwel Hemidesmus indicus (L.) Schultes

(L) Plant product: Presence of chemical

Boswellia serrata Roxb. ex Coleb. Dhupali

Dried gum is inflammable

Pithuda Pueraria tuberosa (Roxb. ex Willd.) DC. b)

Tubers yield starchy flour, which is consumed during famine.

(M) Erect & Prostrate Habit

Udkata (Ukkatya)

e)

Ubhi-ringani a) Solanum anguivi Lamk.

These plants are erect but resemble to 'Bhuiringani' which is

referred to Solanum virginianum L., a prostrate species.

Ubha-gokharu Pedalium murex L.

These plants are erect but resemble in fruits to 'Gokharu' i.e.

Tribulus terrestris L. which is a prostrate plant.

Animals: Plants indicating animal features

Gidhad Aristolochia bracteata L. Its overall appearance, shape of leaves

and flowers are very different from other neighbouring plants,

hence said 'Gidhad' a vulture.

Gokharu Tribulus terrestris L. Fruits are clefted like hoves of a cow. b)

Harenkhuri Corchorus fascicularis Lam. Leaves are shaped like hoves of a deer. c)

Helitropium ovalifolium Forsk. d) Hastrashundi

Flowering spikes are similar to the trunk of an elephant.

Khadyanag (Nagvala) Gloriosa superba L. Elegance of flower is compared to the hood e)

of a cobra.

f) Kombada Celosia argentea L. Inflorescence resembles to cocks comb.

Kutri Xanthium strumarium L. Fruits are spiny and thought as a biting g)

female dog.

Morwel Clematis gouriana Roxb. ex DC. h)

Beauty of leaves is compared with the feathers of a peacock.

Nagphan Opuntia stricta Haw. Flat stem and its elegance is compared to the hood of a cobra.

Nagphani Arisaema murrayi (Grah.) Hook.

Spathe of its inflorescence has hooded look like cobra.

Poptisheng Pentatropis spiralis (Forsk.) Decne.

Follicles resemble to the beak (bill) and colour of a parrot.

Undirkani Merremia emarginata (Burm. f.) Hall. f.

Leaves are shaped like the pinna of a rat.

m) Kuttar-andya Ehretia aspera Roxb. Fruits ressemble to the scrotum-sacs of a

Winchuda Martynia annua L. Fruits are pronged like the sting of a scorpion n)

(O) Numericals: Peculirity of number of parts

Ekdandi Tridax procumbens L. Each branch ends with single peduncle

(and a head)

Cayratia trifolia (L.) Domin Plants show always trifoliate b) Tivnya

condition of the leaves.

Elytraria acaulis (L.f.) Lindau Plants have generally about 20 c) Vismuli

Medicinal Value: Indicative of local medicolore (P)

a) Jakham-judi (Ghavpala) Tridax procumbens L. Leaves are used to heal injuries.

Kanphodi Cleome viscosa L. Leaves are used to treat ear diseases. b)

Solanum anguivi Lamk. Plant is useful to cure maggot-infected c) Kidi

abscesses of cattle.

Chikhalya Striga gesneroides (Willd.) Vatke var. minor Sant.

Injuries caused due to water/mud on feet are cured by using

root-stock.

Hadsan Blepharis repens (Vahl) Roth Plant is useful to cure joint-ache and

bone fracture.

(Q) Taste: Ambat/Khat signify sour taste, while Kadu means bitter.

a) Ambushi Oxalis corniculata L. Leaves are sour.

Khatgal Portulaca oleracea L. Leaves are sour. b)

c) Khat-ambadi Hibiscus sabdariffa L. Calyces are sour.

d) Kadu-indrayan Citrullus colocynthis (L.) Schrad. Fruits are bitter.

Kadu-Shewga Moringa concanensis Nimmo ex Dalz. & Gibs. e)

f) Kadu-jeera Vernonia anthelmintica (L.) Willd. Seeds are bitter and similar to

the seeds of 'Jeera' i.e. Cuminum cyminum L.

(R) Smell or Odour: Plants emitting smell/odour

a) Ghandhatti : Cleome viscosa L. Plants are foetid

b) Ghaneri Cochlospermum religiosum (L.) Alst. Plants are foetid

Lantana camara L. Plants are odourous Ghaneri c)

(S) Colour:

Shendrya Mallotus philippensis (Lam.) Muell.-Arg. Fruits are red.

Pandhari-tilwan Cleome gynandra L. Flowers are white, in contrast to Piwali-tilwan b)

i.e. Cleome viscosa L. which have yellow flowers.

Kala-dhotra Datura metel L. Plants are black-purple in contrast to 'Dhotra',

Datura innoxia Mill.

d) Piwala-dhotra Argemone mexicana L. Flowers are yellow, in contrast to the

above cited one.

Umarya Ammannia baccifera L. Plants are pink-red as the fruits of 'Umbar' i.e. Ficus racemosa L.

f) Safed-musali : *Chlorophytum borivilianum* Sant. Roots-tubers are white, in constrast to 'Kali-musali' i.e. Curculigo orchioides Gaertn.

(T) Fibre-yielding: Cotton-like fibres present on seeds.

a) Ruwadi : i) Calotropis procera (Ait.) R. Br. ii) Calotropis gigantea (L.) R. Br.

(U) Plants used in Food: Bhaji signifies vegetable.

a) Banjan-bhaji
 b) Chilni-bhaji
 chenopodium murale L. Leaves locally used as vegetable.

c) Wanjari-bhaji : Caralluma adscendens (Roxb.) R.Br. Stem locally used as vegetable.

(V) Height, Size, Length: Akash/Deo indicate tallness or largeness

a) Akash-neem : Millingtonia hortensis L. f. Trees are tall.

b) Deodangar : Cucurbita maxima Duch. ex Lam. Fruits are large.

c) Deoringani : Solanum anguivi Lamk.

Plant is erect and relatively tall. It is compared with 'Bhuiringani' i.e. *Solanum virginianum* L. which is prostrate.

d) Deo-aate (Amarwel) : Cuscuta chinensis Lamk. Very long filiform plants.

d) Deodanta : Typha domingensis Pers. Plant are taller.

3. Result and Discussion

The people of this region recognize plant parts viz., root, stem, leaf, flower and fruit including seeds. Underground parts are thought by them as (i) root, (ii) bulb and rhizome, but latter two are called 'Kand'. Corm is merged under rhizome. Few prefixes/suffixes are added to it to describe and differentiate them. In few cases, number of parts is the basis for nomenclature. Stem bark types are recognized, however, no lucid or clear terms are used. These are described by their colour, length and thickness. Leaves are distinguished into two types: (i) Dissected, (ii) Entire. Their size, presence/absence of petiole and bearing leaves near ground or above are given importance in identification. Shapes are described by comparing animal organs, toys or home utensils. Flowers borne singly and in groups are described as ful/phool and fulara respectively. They are also distinguished by using prefixes. In general, colour, taste, smell/odour and economic use or product are emphasized during identification and naming plants.

Features of fruits e.g. dehiscent or indehiscent, juicy or pulpy, number of seeds, their shape, size and colour are employed to distinguish their types. The words Bond, Bondara, Bhendi signify capsular nature of fruits, while 'Sheng' is used to describe either elongated capsule or leguminous fruits. Other features like spine, thorn, white latex, product, medicinal and food values are also given place in determination of plants. Maleness and femaleness are recognized and called 'nar' and 'madhi' respectively. Separate male and female plants are also identified. Distinction of plant

habits like tree, climber and herb do exists in these communities. The word 'Zad' signifies all types of plants, sometimes it exclusively refers to a tree habit. The word 'Zudup' is used to point out shrubby or bushy habit. Likewise, 'Gawat' refers especially to grasses and even, in general to other herbs or crop weeds. Water, soil/rock and distinction between parasitism are the basis for habitat distinction. They are also aware of parasitism and epiphytism. Indigenous nature and wild relatives of cultivated plants are indicated by using prefixes like Jangli, Ran and Kadu.

Similarities and differences are taken into account while defining a taxon in classical This is also the experience of the present author while studying flora of this region (Cf. Patil, 2003), for example, (i) Cassia tora L. and C.obtusifolia L. are named 'Tarhota', while C.absus L. is called 'Tarhotana-mama'. The word 'mama' signifies the latter taxon as a maternal uncle of the former two, (ii) Holarrhena pubescens (Buch.-Ham.) Wall. ex G. Don is named as 'Dahi-Kudi', while Wrightia arborea (Dennst.) Mabb. is called 'Dahikudina-mama'. The above relationship is indicated in these taxa as well. These examples clearly suggests that people of this area recognize similarities and interrelationships amongst the taxa. It also appears that there are some basic principles in these communities e.g. botanical (emphasizing morphological features), utility (emphasizing usually medicinal and dietic significance) and natural features (emphasizing colour, smell/odour, animal organs etc.), apart from habit, habitat, indigenous and exotic nature of plant species.

Colour discrimination is ambiguous especially in tribal communities. Pale green and pale pink are described as 'Safed' (i.e. white). Violet is usually merged with blue or purple. Green, yellow and red are clearly recognized by them. Dark purple is thought as black. Blue is identified as 'Akashi' (i.e. sky-blue). Different shapes of various organs of plants are compared with utensils, toys, house-hold objects etc. The prefixes such as Akash, Deo and Amar always indicate major size, length or height of a organ/plant. Technical terms are naturally used minimum in such attempts.

In classical taxonomy, appropriate (botanical) nomenclature aids in identifying a taxon, whether genus or species. In case of ethnotaxonomy (of the present account) different species of a genus are suggested by adding prefixes or suffixes to the name of a taxon. To me, this appears serving the function of botanical nomenclature. It is the usual experience that one name assigned to two or more taxa pose difficulty in identification.

It appears from the above sketch that some data-base regarding exomorphic features of plants/their parts or products is developed over the immemorable past and still are current in tribal and rural folks of this region. About 22 taxonomic markers are used by the people of this area. This has passed over generations by word of mouth only. Its continuity in future is at stake due to rapid forces of acculturation and modernization .

Nomenclature, identification, classification, and their principles and plant attributes appeared testified in the present attempt of ethnotaxonomy, in the area studied. The wisdom of the tribal and rural communities in these districts revealed above indicate some reckonable elements of ethnotaxonomy.

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