Role of folk nomenclature in understanding and managing plant diversity

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1. Introduction

- Chhattisgarh state of India consists of diverse range of plant species which are under threat due to rapid urbanization (2).
- Botanical and ecological surveys are one of the strategies employed to mitigate this issue (2).
- This state has one of the highest tribal populations in India among which Gond community are prominent (2).
- The Gonds' indigenous language has extensive terminologies related to plants (2).
- This knowledge could be usefull in providing relevant ethnoecological characteristics of plants (1).

2. Aims

1. To document local names of wild edible plants used
2. To analyze local nomenclature in context of plant characteristics and management

3. Research questions

- Do local names encode any information relevant to plant characteristics?
- What is the role of folk nomenclature in understanding plant diversity?

4. Results

- 210 plant species belonging to 90 families were documented including herbs, shrubs, tree and tubers.
- Local names revealed vital information on species habitat, morphology, phenology, uses, habit and taste.
- The results also showed the presence of binomial names consisting of a generic name and modifier (1)
- Information related to ethnoecology was mostly found encoded in modifier part of the name
- Information related to 'habit' of the plant was the most common encoded information

Fig 4. Distribution of encoded information in local names

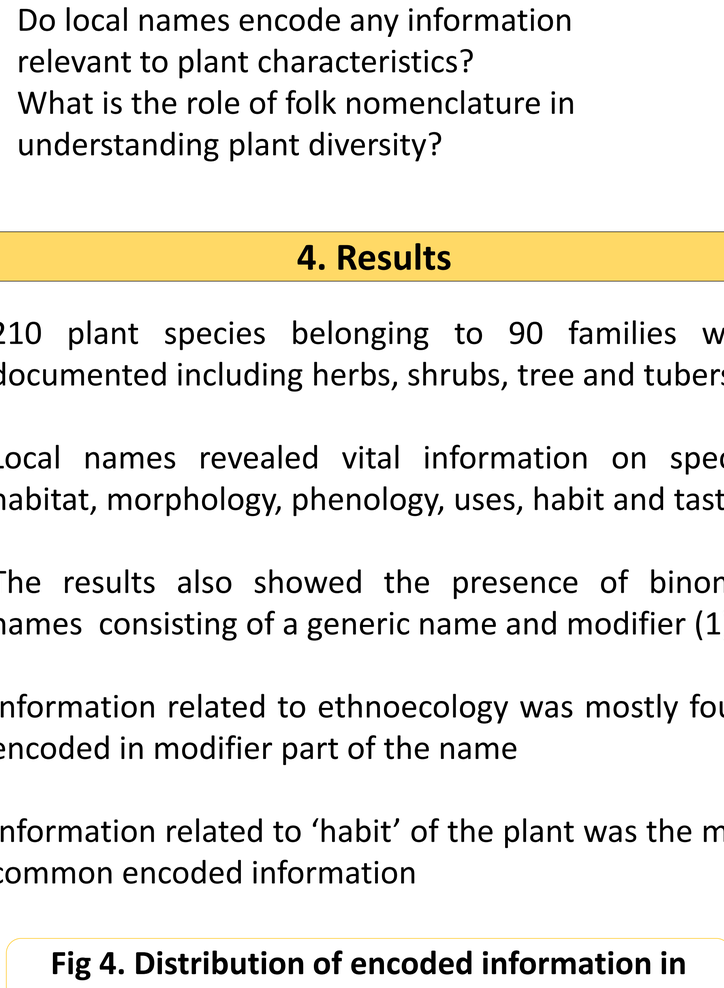

Fig 1: Landscape of study area

Highlights

Habit categories encoded in local names

Terminology	Habit	Example
Mara	Tree	Marka mara
Karre	Shrub	Harang karre
Ronda	Herb	Gath ronda
Podella	Young plant	Hittum podella
Maating	Tuber	Kosa maating

Refer fig 10. for scientific names of examples

Plant characteristics encoded in local names

Plant character	Example	Information
Habitat	Dongar baas	Mountain habitat
Phenology	Kal kurru	Fruit size
Taste	Kirinj maating	Bitter taste
Morphology	Kosa maating	Size of tuber
Habit	Pendra mara	Tree
Use	Et kusir	Edible green

Refer fig 10. for scientific names of examples

Example of one species including generic and modifier

Fig 5. Aquatic habitat of *Ottelia alismoides*

Local name
Neer Kera

Modifier
Neer: Aquatic habitat

Generic name
Kera: Fruit

Fig 6. A tribal showing *Polygonum - plebeium* during household interview

Fig 7. *Amaranthus spinosus L.* use explained by a local

Fig 8. Fruits of *Cordia dichotoma*

Fig 9. 'Walk in the woods' with a Gond family

3. Methodology

- Six Gond villages in three districts across the Bastar region of Chhattisgarh were selected randomly.
- Focus group discussions and household interviews of 54 people (29 men and 25 women) were conducted using snowball and purposive sampling
- 'Walk in the woods' method involved documenting identification strategies (2).
- The herbarium specimens were collected, identified taxonomically and deposited at a National herbarium

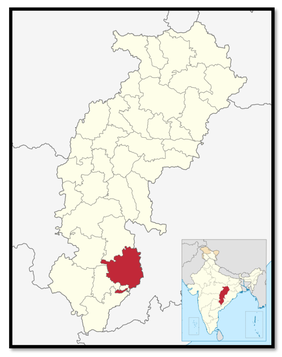

Fig 2: Bastar, Chhattisgarh, India

Fig 3: Household interview with participants

Fig 10. List of selected wild edible plants documented

Sl.no	Local name	Scientific name	Family	Habit
1	Vadangul kusir	*Celastrus paniculatus Willd.*	Celastraceae	Liana
2	Reka mara	*Buchanania lanzan Spreng.*	Anacardiaceae	Tree
3	Marka mara	*Mangifera indica L.*	Anacardiaceae	Tree
4	Kohka mara	*Semecarpus anacardium L.f.*	Anacardiaceae	Tree
5	Baidhok naar	*Mucuna pruriens (L.) DC.*	Fabaceae	Climber
6	Karanj mara	*Pongamia pinnata (L.) Pierre*	Fabaceae	Tree
7	Dongar baas	*Dendrocalamus strictus (Roxb.)*	Poaceae	Grass
8	Et kusir	*Senna tora (L.) Roxb.*	Fabaceae	Herb
9	Harang mara	*Shorea robusta C.F.Gaertn.*	Dipterocarpaceae	Tree
10	Thahaka mara	*Terminalia bellirica (Gaertn.) Roxb.*	Combretaceae	Tree
11	Kosa maating	*Dioscorea pubera Blume*	Dioscoreaceae	Tuber
12	Hittum podella	*Woodfordia fruticosa (L.) Kurz*	Lythraceae	Shrub
13	Kal kurru	*Catunaregam spinosa (Thunb.) Tirveng*	Rubiaceae	Tree
14	Pendra mara	*Ceriscoides turgida (Roxb.) Tirveng.*	Rubiaceae	Tree
15	Rasna jadi	*Leucoblepharis subsessilis Arn*	Asteraceae	
16	Goddel kusir	*Sphaeranthus indicus*	Asteraceae	Herb
17	Kirinj maating	*Dioscorea oppositifolia L.*	Dioscoreaceae	Tuber
18	Paalod mara	*Holarrhena pubescens Wall. ex G.Don*	Apocynaceae	Tree
19	Gath ronda	*Sphaeranthus indicus*	Asteraceae	Herb
20	Karmatta bhaji	*Dillenia pentagyna Roxb.*	Dilleniaceae	Tree

5. Conclusion

- The folk plant names used provide vital information on ethnoecological characteristics.
- The study reveals that 'habit' of the plant plays an important role in the local nomenclature
- Folk names display an integral link between biological, cultural and linguistic diversity
- Data acquired could be useful for local stakeholders working on botanical explorations and biocultural diversity
- The folk names used by Gonds is complex in nature and could be further investigated in context of taxonomy and plant conservation

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