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Therapeutic Use Of Medicinal Plants Used For The Treatment Of Animals

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Abstract

The present study is based on the plant parts used by indigenous people for the treatment of different diseases of animals. The villagers, medicinal practitioners, and traditional healers used plants and their extracts for the treatment of animal diseases. Data were collected from the experts regarding the use of plants to cure animals. A total of 50 plants were identified and the plant parts having medicinal value were also documented. The study shows that each part of the plant is having some medicinal value. Mainly the rhizome, leaf, bark, stem, and seed are used for the preparation of different medicines. The tribal used the indigenous medicinal plants for the treatment of animal diseases, especially for cattle.

Keywords: Tribal, Traditional Medicine, Rayagada, Odisha, Veterinary

Introduction

Odisha is a tribal state. Around 62 different distinct tribes and 13 primitive tribes are recognized in different districts of Odisha. They constitute 22.5% of the total population. The main tribes of Odisha are Kandho, Gond, Santhal, Sabar, Munda, Bhuiya, Kissan, Didayees, Gadaba, Matia, Dharua, Bathudi, Kolha, Juang, Kharia, Mirdhas, Bhumiya, Soara, Binjhal, Sounti etc. In Koraput district around 52 different tribes are seen.

Their main occupation is agricultural farming, basketing, labor, fishing, cattle rearing, etc. Odisha has a large number of tribes as compared to other states of India. Their population is concentrated in three districts of Odisha ie.Koraput, Sundergarh and Mayurbhanj.Their socio-economic needs are fulfilled by the biotic and abiotic components of the forest ecosystem. The Paraja tribes are found in the Kalahandi and Koraput regions of Odisha. Their habitat is hilly and forest areas. The Saora tribes are good hunters and climbers. Bonda tribes generally practice a barter system. Of all the tribes Oraon tribals are economically sound as they

interact with the modern world regarding agricultural practice. They depend upon forests for their livelihood. They get food, medicine, fiber, fodder, and timber from the forest. A wide variety of plants are also used by the tribal as medicine for human beings as well as animals. They not only consume edible foods but also sell them in the market to earn a livelihood. They grow the plants by using organic fertilizer and pesticides that increase the nutritious value of food products. The indigenous people have traditional knowledge about the treatment of animals. Even in modern days, people depend on folk medicine for the treatment of animals. The elderly people and veterinary practitioners.

Ethnobotanical survey in Koraput district

Ethenobotanical survey in koraput district was undertaken by various researchers. (P.K Das.,1995,S.Das,M.Misra,1995)

Study Area

The study on therapeutic use of different medicinal plants was carried out in the Rayagada district of Odisha. Rayagada is a district in southern Odisha. It is one of the tribal districts of Odisha. Rayagada covers an area of 7,584.7 square kilometers (2,928.5 sq mi) and is divided into eleven blocks. The tribes include the Khonds and the Soras. The main language spoken by the tribes is Koi, Sora, and Kuvi. Agriculture is the main occupation of tribes. They depend on nature for their food, shelter, medicine, etc. The, Particularly Vulnerable Tribe Group, Dangaria Kandhas live in the terrains of Niyamagiri hill ranges in Rayagada and Kalahandi district. They cover 4 (four) Blocks in Rayagada and Kalahandi district. The blocks are Bissamcuttack, Muniguda and Kalyan Singpur of Rayagada District and some parts of Lanjigarh block in Kalahandi District. They speak in “Kui" language. They are skilled in Horticulture and practice shifting cultivation. They grow different fruits,vegetables and cereals like pineapple, banana, oranges, turmeric, zinger, millets, and pulses in their fields. The Dangaria Kandha is one of the dominant tribes of India. Their main occupation is cultivation in bare lands and plantation of different fruit-bearing plants.

Methodology

The information regarding traditional knowledge of medicinal plants was collected through personal interviews with the help of interpreters. A survey was carried out in the different tribal villages of the Rayagada district. During field visit interview were conducted and

information was collected from local Vaidyas, the old people, and medical practitioners. The medicinal value of each plant was recorded in a systematic pattern.

Result and Discussion

Table-1. The therapeutic aspect of some medicinal Plants

Sl. No.	Plant Name	Family	Local Name	Parts Used	Uses
1.	*Andropogon citrates (DC.)*	(Poaceae)	Dhanitri	The whole plant, leaves	carminative
2.	*Andrographis paniculata (Burm.f.)*	(Acanthaceae)	Bhuinlimba	Leaves	Fever, liver disorder, jaundice
3.	*Annona reticulate (L.)*	(Annonaceae)	Ata	Leaf, seed, fruit, bark	Insecticide
4.	*Annona squamosa (L)*	(Annonaceae)	Sitaphal	Leaf, seed, fruit, bark	Insecticide
5.	*Anthocephalus cadamba (Roxb.)*	(Rubiaceae)	Kadam	leaf	Abdominal pain
6.	*Bidens biternata (Lour.)*	Asteraceae	Bankakhamali	Whole plant	Fed to the cow as a galactagogue
7.	*Biophytum sensitivum (L)*	Oxalidaceae	Badilajkuri	whole plant	Fed to the cow as a galactagogue
8.	*Barringtonia acutangula (L)*	(Lecythidaceae)	Dandidaru	Stembark	Foot disease of goat and sheep
9.	*Bombax ceiba (L)*	(Bombacaceae)	Semel	seed	Measles
10.	*Butea monosperma (Lam.)Taub.*	(Fabaceae)	palasa	seed, flower, stem, leaf	Anthelmintic
11.	*Chenopodium album (L)*	(Amaranthaceae)	Bathuasaga	Whole plant	Anthelmintic

12.	*Calophyllum inophyllum (L)*	(Callophyllaceae)	Palanga	Seeds, fruit, root, stem	Ulcers
13.	*Clerodendrum phlomidis (Linn.F.)*	(Lamiaceae)	Agiabatha	root, leaf	Skin infection
14.	*Costus speciosus (J.Koing)*	(Costaceae)	Kero	Rhizome	Mouth ulcers of buffaloes
15.	*15. Crateva nurvala (Buch.)*	(Capparaceae)	Baruna	Bark	Treatment of Urinary disorder
16.	*Careya arborea (Roxb.)*	Kum	root	Externally applied to kill flea and lice	
17.	*Chloroxylon swietenia (DC.)*	Flindersiaceae	Bheru	leaf	Fed to goat as a galactagogue
18.	*Diospyros melanoxylon (Roxb.)*	(Ebenaceae)	Kendu	fruit	Eye infection
19.	*Dillenia aurea (L)*	(Dilleniaceae)	Karmata	Fruit juice	The swollen tongue of buffalo
20.	*Erythrina variegate (L.)*	(Fabaceae)	Baldia	leaf	Treatment of dysentery
21.	Erythrina suberosa (Roxb.)	Fabaceae	Baldia	Leaf	yoke core treatment
22.	Erythrina Indica (Lam.)	(Fabaceae)	Paladhua	Leaf, flower, stem, seed	Eradication of worms in cattle
23.	Ficus religiosa (L.)	(Moraceae)	Asotha	Stem, root, fruit, seed	Skin disease
24.	Gardenia gummifera (L.f.)	Rubiaceae	Kurudu	Resin	Sores treatment
25.	Hibiscus cannabinus (L.)	Malvaceae	Kanria	Seed	Lactation of cattle

26	*Ichnocarpus frutescens (L.)*	(Apocyanaceae)	Dudhi lahar	stem	To arrest bleeding in wounds of goats, sheep, and cattle
27	*Justicia adhatoda (L.)*	Acanthaceae	Basanga	Leaf	Bronchial &cough treatment
28	*Kalanchoe pinnata (Lam.)*	Crassulaceae	Patragaji	leaf	To treat dyspepsia
29	*Lygodium flexuosum (L.)*	Lygodiaceae	Mahajal	Whole plant	Bone fracture
30	*Madhuca Indica (J.F.Gmel.)*	Sapotaceae	Mahul	wholeplant	Worms treatment
31	*Mimusops elengi (L.)*	Sapotaceae	Buulo	Leaf	Urinary bladder treatment
32	*Myristica fragrans (Houtt.)*	(Myristicaceae)	jaiphal	Green leaves	Induction of Oestrus
33	*Nerium odorum (L.)*	(Apocyanaceae)	Karabira	root, bark, leaf, tuber	Ulcers
34	*Phyllonthus urinaria (L.)*	(Phyllanthaceae)	Bhuin Anla	whole plant	Stomachic diuretic
35	*Piper longum (L.)*	(Piperaceae)	Pippali	stem, root	Alterrative, carminative
36	*Plantago ovate (L.)*	(Plantaginaceae)		Seed, husk	Skin disease
37	*Pongamia pinnata (L.)*	(Fabaceae)	Karanja	Seeds, fruit, root, stem	Skin disease
38	*Swertia chirata (L.)*	(Gentianaceae)	Cheirita	Whole plant	Anthelmintic
39	*Strychnos nuxvomica (Linn.)*	(Loganiaceae)	Kochilla	Seed	Treatment of foot disease of cattle
40	*Schleichera oleosa (*	(Sapindaceae	Kusum	Seed	Skin infection

	Lour.)	)			
41	*Terminalia chebula (Retz.)*	Combretaceae	Harda	Fruit	Tooth diseases, abdominal pain
42	*Terminalia arjuna (Roxb.ex DC.)*	Combretaceae	Kha	Leaf	Bone strengthening
43	*Tinospora cordifolia (Willd.)*	(Menispermaceae)	Guluchilata	stem, root, fruit	Antirheumatic
44	*Tribulus terrestris (L.)*	(Zygophyllaceae)	Gokhara	Fruit, root	Urinary infection
45	*Trianthema portulacastrum (L.)*	(Aizoaceae)	Puruni shaga	root, leaf	Analgesic
46	*Vitex negundo (L.)*	Verbenaceae	Nirgundi	Leaves	Rheumatism
47	*Vitex negundo (Linn.)*	Euphorbiaceae	Sursing	Leaf	Treatment of neck swelling in cattle
48	*Tephrosia purpurea (L.)*	(Fabaceae)	Sharpunkha	Root	Analgesic and anti inflammatory
49	*Vernonia cinerea (L.)*	(Asteraceae)	Sahadei	Whole plant	Treatment of spasm of the bladder
50	*Vernonia anthelmintica (L.)*	(Asteraceae)	Somaraj	Seed	Skin diseases

The result of our study shows that Phyto resources are used by the tribal for generating their income. All the family members are involved in the collection of plant parts such as leaves, roots, fruits, seeds, and barks from the forest. They also extract gums, resins, latex, and commercially important dyes. The indigenous people of the study area grow and harvest different plant parts i.e. leaves, roots, seeds, barks, and fruit for the preparation of traditional remedies. 77

The local Vaidya have great knowledge about medicinal plants. Investigation of data shows that fifty species of plants are used for the treatment of thirty-two types of different diseases

of animals. One plant each is used for the treatment of fever, liver disorder, jaundice, Abdominal pain, Measles, to kill flea and lice, Eye infection, swollen tongue, dysentery, Yoke gall treatment, sores treatment, Arrest bleeding in wounds, Bronchial and cough treatment, Dyspepsia, Induction of Oestrus, Stomachic diuretic, Anthelmintic, Tooth disease, Analgesic, Treatment of spasm of bladder, neck swelling. Two plants each are used for curing Carminative, worm treatment, Eradication of worms, Bone fracture, and Rheumatism. Most of the species are local and some species are grown in the garden. The plant species are arranged systematically. For each species details of the scientific name, and local name parts used for the treatment of diseases are mentioned. It is also observed that leaves are used frequently followed by root, stem, seed, and whole plant parts.

Conclusion

The study revealed that plants play a vital role in curing different diseases. The traditional knowledge and practice of tribal people on herbal practice should be preserved as there is a high risk of extinction. These rare medicinal plants can be used further for a research purposes if we conserve them. After several pieces of research, it is observed that plant products are very effective in the treatment of animal diseases. The study shows that due to the lack of interest of local youths in herbal plants the traditional knowledge of plants is getting declined. Therefore proper documentation of these plants is to be done for further research purposes.

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Figure-1. Map of Odisha showing Rayagada District

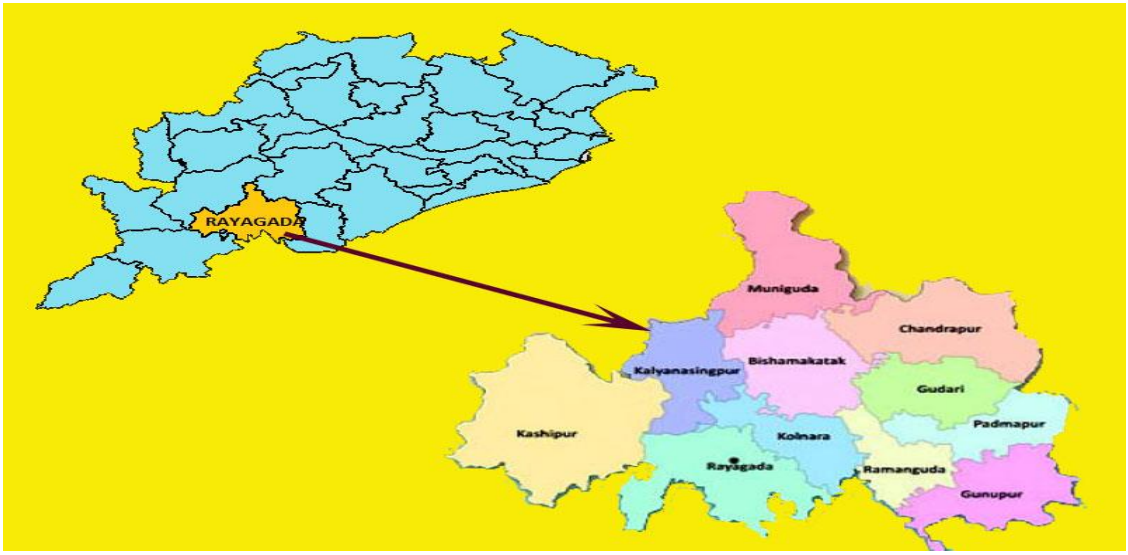


Figure-2. Analysis of Ethno medicinal plants

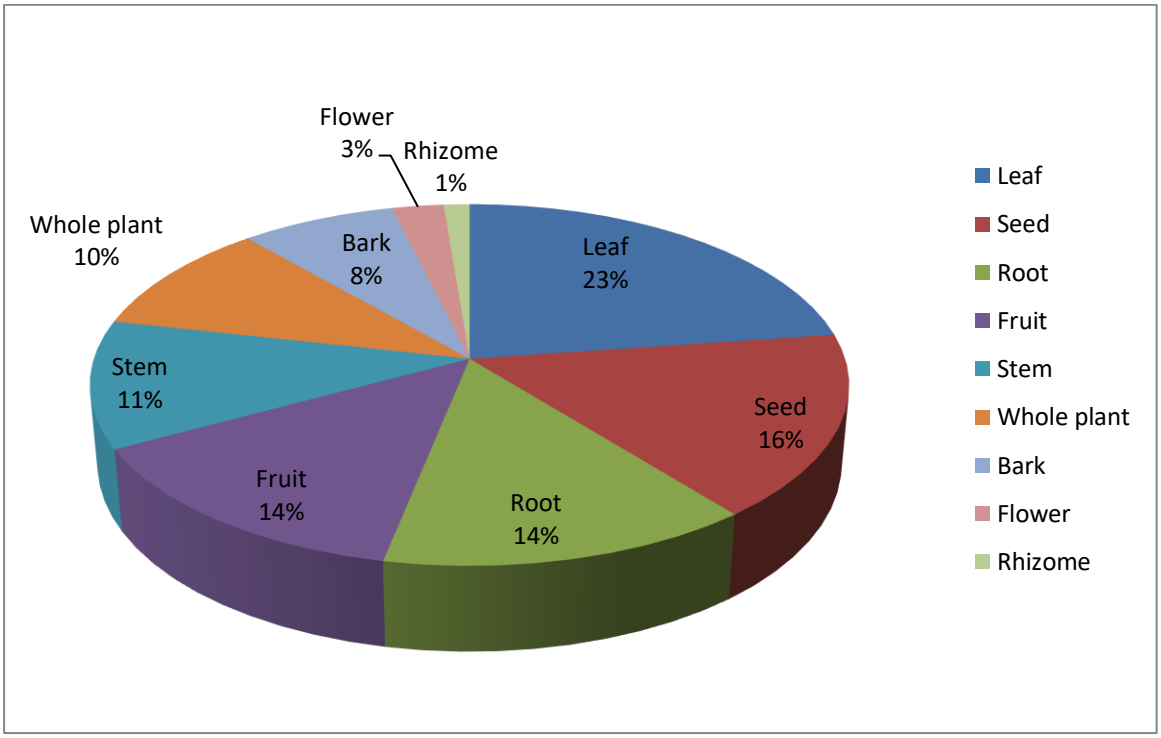
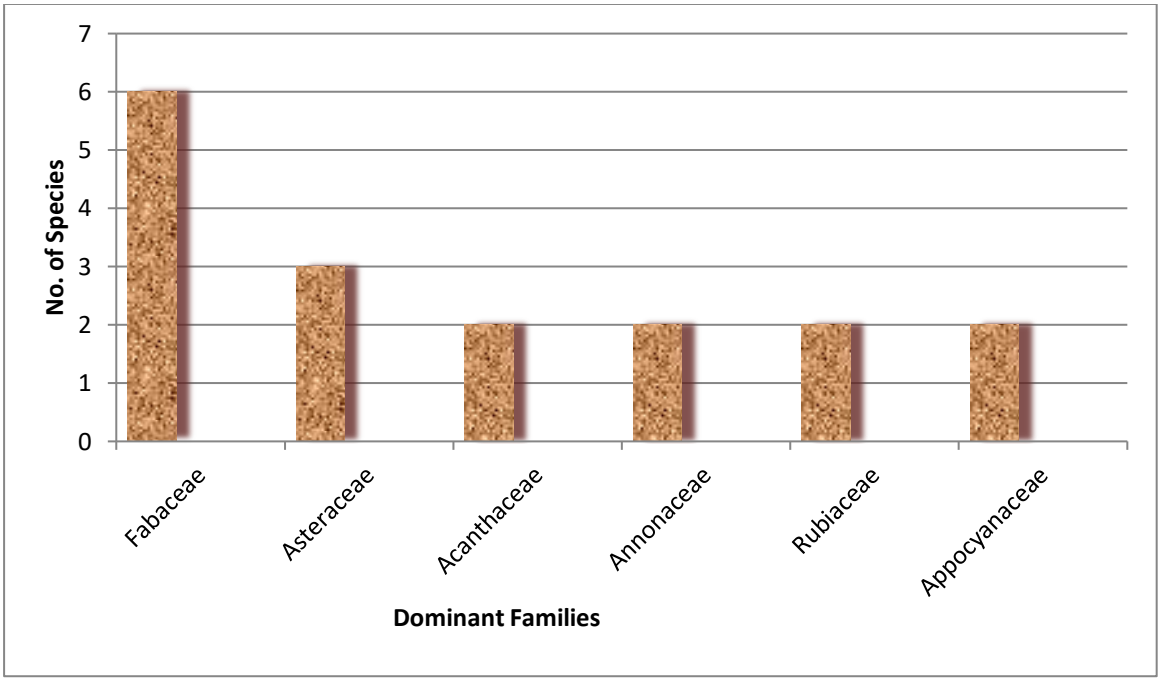


Figure-3. Dominant Families used



References

1. WHO, *Traditional Medicine: Growing Needs and Potentials*, 2002.
2. WHO, "Traditional medicine," 2012, http://www.who.int/mediacentre/factsheets/fs134/en. View at: Google Scholar
3. WHO, "Traditional medicine," 2008, http://www.who.int/mediacentre/factsheets/fs34/en. View at: Google Scholar
4. Bharati KA, Sharma BL. Plants used as ethno veterinary medicines in Sikkim Himalayas. Ethno Bot Res. 2012;10:339–56.
5. Dabagar, Y.B. Traditional Phytotherapy of Ghaghret, District Mehasana (North Gujarat). International Journal of plant Sciences. 1, 2006, 79-83.
6. Dar MS, Khuroo AA, Malik AH, Dar GH. Ethnoveterinary uses of some plants by Gujjar and Bakerwal community in Hirpora Wildlife Sanctuary, Kashmir Himalaya. SKUAST Journal of Research. 2018; 20(2):181-186.

7. Das, A., Tag, H. Ethnomedicinal studies of the Khamti tribe of Arunachal Pradesh. Indian Journal of Traditional Knowledge. 5, 2006, 317-322.
8. Eswaran S, Boomibalagan P, Rathinavel S. Ethnoveterinary medicinal practices of the villagers of Usilampatti Taluk of Madurai district, India. Int J Bot. 2013;9:37–43.
9. Galav P, Jain A, Katewa SS. Ethnoveterinary medicines used by tribals of Tadgarh-Raoli wildlife sanctuary, Rajasthan, India. Indian J Tradit Knowl. 2013;12:56–61.
10. Haines HH.The Botany of Bihar and Orissa: an Account of all the known
11. Indigenous Plants of the Province and the most important or most commonly
12. Cultivated Exotic Ones, Nature, 1926;117, 225–226.
13. Harsha, V.H., Shripathi, V., Hedge, G.R. Ethnoveterinary Practices in Uttara Kannada District of Karnataka. India J. Trade. Knowledge, 2005, 4:253-258.
14. Katewa, S.S., Galav, P.K. Traditional herbal medicine from Shekhavathi region of Rajasthan. Indian Journal of Traditional Knowledge, 2005, 4, 237-245.
15. Malik BK, Panda T, Padhy RN. Ethnoveterinary practices of aborigine tribes in Odisha, India. Asian Pacific Journal of Tropical Biomedicine. 2012; 2(3):1520-1525.
16. Mishra D. Cattle wounds and ethnoveterinary medicine: a study in Polasara block, Ganjam district, Orissa India Indian. J Tradit Knowl. 2013;12:62–5.
17. Naik RM, Venugopalan V, Kumaravelayutham P, Krishnamurthy YL. Ethnoveterinary uses of medicinal plants among the Lambani community in Chitradurga district, Karnataka, India. Asian Pacific Journal of Tropical Biomedicine.2012; 2(2):470-476.
18. Pragada PM, Rao GMN. Ethno veterinary medicinal practices in tribal regions of Andhra Pradesh, India. Bangladesh Journal of Plant Taxonomy .2012; 19(1):7- 16.
19. Phondani PC, Maikhuri RK, Kala CP. Ethnoveterinary uses of medicinal plants among traditional herbal healers in Alaknanda catchment of Uttarakhand, India. Afr J Tradit Complement Altern Med. 2010;7:195–206.
20. Reddy, K.N., Subbaraju, G.V., Reddy,V.S. Ethnoveterinary medicine for treating livestock in Eastern Ghats of Andhra Pradesh, India. J Trad. Knowledge, 2006:5; 368-372.
21. Sahoo AK. Plant Resources of Kandhamal District (Odisha): Some Suggestion to
22. Develop Cottage Industries in TribalLocalities. Orissa Review. 1986; 43(4):
23. 39–44p.

24. Sathys, V., Solanki,. C.M. Indigenous Knowledge of Veterinary medicine among tribes of West Nimar, Madhya Pradesh, Indian. J. Trad. Knowledge, 2009, 33- 896-902.
25. Saxena HO, Brahman M. The Flora of Orissa. Vols. 1–4. Bhubaneswar: Odisha
26. Forest Development Corporation; 1994–96.
27. Saxena HO, Dutta PK. Studies on the Ethnobotany of Orissa. Bull Bot Surv
28. India. 1975; 17(1–4): 124–131p.
29. Selvaraju A, Ayyanar M, Rathinakumar SS, Sekar T. Plants used in ethno veterinary medicine by malayalitribals in Salem district of Tamil Nadu, India. Medicinal Plants. 2011;3:209–15.
30. Sharma R, Manhas RK, Magotra R. Ethnoveterinary remedies of diseases among milk yielding animals in Kathua, Jammu and Kashmir, India. J Ethnopharmacol. 2012;141:265–72.
31. Sofi SA, Hakeem R, Manzoor MA, Wath MR, Sofi KA. Ethno- veterinary practices performed for animal care in Kulgam district, (Jammu and Kashmir). International Journal of Research and Analytical Reviews. 2019; 6(1):657-663.
32. Tiwari L, Pande PC. Ethnoveterinary plants of Johar valley of Pithoragarh district, Uttarakhand Himalaya. Vegetos. 2009; 22(1):55-62.
33. Subudhi HN, Choudhury BP.Ethnobotanical Studies in the District of
34. Kandhamal (Orissa-1). Bio-Sci Res Bull.1985; 1(1–2): 26–32p.
35. Udhayan, P.S., George, S., Tushar, K.V., Balachandran, I. Medicinal Plants used by the Kaadar Tribles of Sholayar Forest, Thrissur District, Kerala. Indian Journal of Traditional Knowledge 4, 2005, 159-163.