



Original Article

Ethno-Zoological Practices in Some Tribal Areas of Chandrapur District, Maharashtra, India

S.D. Misar* and M. Subhas

P.G. Department of Zoology, Janata Mahavidyalaya Chandrapur (MS) 442401, India

ARTICLE INFO

Corresponding Author:

S.D. Misar
sachin.misar@gmail.com

How to cite this article:

Misar, S.D., and M. Subhas. 2014. Ethno-Zoological Practices in Some Tribal Areas of Chandrapur District, Maharashtra, India. *The Journal of Agriculture and Natural Resources Sciences*. 1(3):172-179.

Article History:

Received: 26 October 2014
Revised: 18 November 2014
Accepted: 20 November 2014

ABSTRACT

This paper documents the traditional medicine practices in an area of Taluka Jiwati of Chandrapur district, Maharashtra. This study was mainly conducted in the villages surrounding the Jiwati Taluka, which is primarily based on survey carried out in villages where tribal people provide information about use of animal and animal derived parts as medicine. The animal parts namely blood, excreta, urine, feather, fat, hairs, spines, skin, flesh, bones, secretions, etc. were used in raw or cooked forms for the treatment of burns, fracture, asthma, fever, cough, tuberculosis, paralysis, goiter and for other diseases also, a total of 88 animal species were found which are used for traditional medicinal practices.

Keywords: Chandrapur, Ethnozology, Gond, Jiwati, Trib.

Copyright © 2014, World Science and Research Publishing. All rights reserved.

INTRODUCTION

The use of complete range of natural resources including plant, animals is a common practice in traditional medicine. Animals and product derived from their organs have constituted part of inventory medicinal substances use in various cultures since ancient times (Adeola, 1992; Alves *et al.*, 2007 and Alves *et al.*, 2009). The use of animals for medicinal purposes is a part of a body of traditional knowledge which is increasingly becoming more relevant to discussions on conservation biology public health policies, sustainable management of natural resources and biological prospection (Alves *et al.*, 2008). Above publication have shown the importance of zotherapy in various socio culture environments around the world, and examples of the use of animal derived remedies can currently be found in many urban, semi-urban and more remote localities in all parts of the world particularly in developing countries (Adeola, 1992; Sodeinde and Soewu, 1999; Solavan *et al.*, 2004;

Trivedi, 2002 and Vázquez, 2006). In India the traditional knowledge system is fast eroding due to urbanization. So there is an urgent need to inventories and record all ethnobiological information among the different ethnic communities before the traditional culture are completely lost (Trivedi, 2002). A lot of work has been done in the Chandrapur district on the medicinal plant and plant products and documented too, but there is definite scarcity of such knowledge when it comes to animal products. Thus there is an urgent need to make such study in the field of zotherapy. So keeping this aspect in view we have undertaken this study.

MATERIALS AND METHODS

Study Area

The present work was carried out in the tribal community located in villages of Jiwati Taluka in Chandrapur District. This district is situated on the North-Eastern region of the Maharashtra State, India and is well known for dense forest; having State borders of Andhra Pradesh and on the hit of Naxalites. (Figure1). The Jiwati Taluka covers the total area of about 3123 Sq.Kms. the geographical location of Jiwati is 19° 73' N Latitude to 79° 16' E Longitude. The District falls under assured and heavy rainfall zone. The rains are mainly received from South-West monsoon. The average rainfall is 1562 mm. The climatic condition is extreme with temperature reaching 47.3 C in summer & 11.4 C in winter Forests are rich in Teak, Ain, Tendoo, Dhavada, Anjan, Bamboo etc. From the socio-culture point of view the Chandrapur district exhibit great ethnic and cultural diversity.



Methodology

In present study, survey was conducted from December 2013 to March 2014 in surrounding villages (Sitaguda, Pallezari, Ghatraiguda, Rahapalli and Gondguda) of Jiwati Taluka, Data were collected through semi structured questionnaires by discussion with selected rural tribal peoples. A total of 20 (10 male and 10 female) peoples were selected to collect information. The name of animals, animal derived parts there mode of preparation,

application and the other information related to this study were documented and some photographs about life style and culture of Gondi, Kolami, Madia ,Pardhan and Mana peoples in this area were taken. The scientific name and species were identified using relevant and standard literature.

RESULTS

During Survey following ethno zoological data were gathered through interviews from local and tribal peoples in Jiwati Taluka (Table 1).

Table 1: Ethno Zoological Data

Sr. No.	English Name	Scientific Name	Local Name	Class	Uses
1	Honey bee	<i>Apis dorsata</i>	Madhmashi	Insecta	Honey is used in curing of cough, diarrhea and vomiting.
2	Red Ant	<i>Solenopsis invicta</i>	Lalmungi	Insecta	A Paste made from ant is eaten as a remedy for myopia (shortness of sight).
3	Silk Worm	<i>Bombyx mori</i>	Kosa	Insecta	Ash is used in digestive problem and eye diseases
4	Cockroach	<i>Periplanata America</i>	Zural	Insecta	Ash is used with honey for urine infection.
5	Housefly	<i>Musca domestica</i>	Mashi	Insecta	Whole paste is applied to furuncles.
6	Stingless bee	<i>Trigona sp.</i>		Insecta	Used to treat glaucoma(eye disease that causes gradual loss of sight)
7	Earthworm	<i>Pheretima posthuma</i>	Gandul	Insecta	Dried worms are beneficial in healing wounds, piles, and cough. Oil from worms is uses in paralysis and pain.
8	Leech	<i>Hirudinaria javanicus</i>	Jalu	Hirudina	Boiled leeches in sesame oil to produce a sexual stimulant for male sex organ
9	Draganfly	<i>Anax Sp.</i>	Zingoti	Insecta	Dragonfly is eaten raw and can recover urinary problems.
10	Land Snail	<i>Helix pomatia</i>	Gogalgay	Insecta	Saliva of Land snail is used for eye diseases.
14	Bug Giant water	<i>Belastoma indica (Atkinsa)</i>	Pankasav	Insecta	Roasted organism eaten for protein supplement.
15	Sting bug	<i>Halyomorpha H.halys</i>	Gandhil mashi	Insecta	Eaten cooked for urino genital disorder.
16	Water scorpion	<i>Nepa cinerea L.</i>	Pankida	Insecta	Eaten roasted in protein supplement
17	Green leaf Hopper	<i>Nephotettix Sp.</i>	Hirava naktoda	Insecta	Crushed Live and applied & dried and burn for stop bleeding asthma and gonorrhea
18	Wasp	<i>Vespa orientalis Linn</i>	Ganjawal	Insecta	Larva crushed Live and applied to treat Arthritis.
19	Termite	<i>Odontotermes Sp.</i>	Udhali	Insecta	Eaten fried to treat Anemia.
22	Crab	<i>Cancer Sp.</i>	Khekada	Crustacea	Flesh boiled and taken in to relieve caught, fat used for burns.
23	Prawn	<i>Palaemon</i>	Zinga	Crustacea	It is, used for corn disease. It is 1st allow to decau for
24	Spider	<i>Theraphosa Sp.</i>	Koli	Araneae	Hairs used in magic rituals.
25	Calta	<i>Cyprinus</i>	Katla	Actinopter	Fish is edible and give vitamins &

		<i>carpio communis</i>		ygii	nutrients.
26	Mrigal	<i>Cirrhinus mrigala</i>	Mrigal	Actinopterygii	Fish is edible & beneficial for good health .
27	Rohu	<i>Labeo rohita</i>	Rohu	Actinopterygii	Fish is edible for good health(stone - It is eat in kidney stone)
28	Crocodile	<i>Crocodylus palustris</i>	Magar/Magar i	Reptilia	Eggs of crocodile used to treat asthma skin is greatly priced by trade.
29	Common Indian monitor lizard	<i>Varanus bengalensis</i>	Ghorpad	Reptilia	Fat massaged to relieve arthritis, body pain and rheumatism. Flesh is cooked and eaten to treat piles.
30	Rat Snake	<i>Ptyas mucosus</i>	Dhaman	Reptilia	Fat massaged to relieve body pain rheumatism skin is collected to trade.
31	Python	<i>Python reticulatus</i>	Ajgar	Reptilia	Fat is applied to relieve rheumatic pains and also to treat toothache.
32	Cobra	<i>Naja naja</i>	Nag	Reptilia	Cast of slough used for leprosy and As mixed with oil and apply on wound.
33	Green frog	<i>Euphlyctis hexadactylus</i>	Hirwa Beduk	Amphibia	Fat is used as aphrodisiac.
34	bull frog	<i>Hoplobatrachus crassus</i>	Motha beduk	Amphibia	Flesh is taken in to treat cracks on feet.
35	Owl Spotted owl	<i>Bubo-bubo</i>	Gavhani Ghubad	Aves	Meat is promotes strength & viability.
36	Cuckoo	<i>Cuculus canorus</i>	Maina	Aves	Flesh is cooked with cumine powder & consumed for 10 day and it is used for treating of breathing problems.
37	Kite	<i>Milvus milvus</i>	Ghar	Aves	Meat is edible for vitamins.
38	Pigeon	<i>Columba livia</i>	Kabutar	Aves	Meat giving to patients suffering from paralysis.
39	Peacock	<i>Pava cristatus</i>	Mor	Aves	Feathers are used in injury & it is used in asthma also.
40	Dove	<i>Spilopelia chinensis</i>	Jangali Kabutar	Aves	Meat is edible to treat joint pain.
41	Blue Jay	<i>Caracias benghalensis</i>	Nilkanth	Aves	Meat is eaten for increasing resistance power of body.
42	Duck	<i>Anas cuta</i>	Badak	Aves	Meat is eaten for the vitamins and muscular pain.
43	Bagula	<i>Cattle egret</i>	Bagala	Aves	(Bone is used for cataract) powdered bone suspended in rose water is used as eye drop.
44	Crow	<i>Corvus splendens</i>	Kawala	Aves	feces rubbed on Tumour.
45	Sparrow	<i>Passer domestica</i>	Chimani	Aves	Feces excreta directly applied on bump.
46	Crane	<i>Crus grus</i>	Karkocha	Aves	The fibrous feathers which is found in thine wings feathers applied in injury region.
47	Little grebe	<i>Tachybaptus ruficollis</i>	Rangit badak	Aves	Egg massaged on body for 4-5 days once in a day relieve swelling on body.
48	Squirrel	<i>Fumambulus pennant</i>	Kharali/Khar	Aves	Meat is edible for strength viability.
50	Common Buzzard	<i>Buteo buteo</i>	Garud	Aves	Feather roasted powdered & dissolved in honey.
51	Greater spotted	<i>Ictinaetus malayensis</i>	Thipakewala garul	Aves	Nail roasted, powdered& dissolved in mustard oil& used as ear drops of 4-5

	eagle				days.
52	Purple moorhen	<i>Porphyrio porphyrio</i>	Sultana	Aves	Blood massaged on affected part for 2-3 days once a day to cure paralysis.
53	Water hen	<i>Gallinix cinera</i>	Pankombadi	Aves	Flesh rubbed on muscles for 2-3 times to treat muscular pain.
54	Titar	<i>Francolinus Sp.</i>	Titar	Aves	Meat is edible to increase the resistance power of body and also for joint pain.
55	Lava	<i>Coturnix-coturnix</i>	Lava	Aves	Meat is eaten for muscular pain & vitamins.
56	Black drongo	<i>Dicrurus macrocerus</i>	Kargochya	Aves	Meat is edible for strength & viability.
57	Kingfisher Lesser pied	<i>Cerylerudis Sp.</i>	Khandya	Aves	Feather burns of ash, dissolved in honey taken once or twice to treat cough.
58	Indian Myna	<i>Acridotheres tristis</i>	Maina	Aves	Flesh cooked & given for children who are less talking for 1-2 days.
59	Wagtail	<i>Motacilla alba</i>	Kavali	Aves	Meat is edible in treatment of paralysis.
60	Wood Picker	<i>Dinopium benghalnse</i>	Sutar	Aves	Feathers roasted powdered & dissolved in honey to given for cough
61	Camel-bird	<i>Struthio camelus</i>	Shahamrug	Aves	Blood massaged on affected part of paralysis.
62	Weaver bird (Bays)	<i>Ploceus cucullatus</i>	Sugaran	Aves	Meat is edible for vitamins.
63	Flying Fox	<i>Pteropus medius</i>	Motha Watwaghul	Mammalia	Meat is cooked and eaten for joint pain.
64	Jackal	<i>Canis aurues</i>		Mammalia	Meat is used to cure asthma paralysis and arthritis
65	Cow	<i>Bos Spp.</i>	Gay	Mammalia	Milk,Ghee,curd eat for calcium & vitamins and energy
66	Rat	<i>Ratus ratus</i>	Undir	Mammalia	Meat promotes production of semen.
67	Beer	<i>Selenarctos Sp.</i>	Aswal	Mammalia	Gall bladder & bile duct extract used for releiving stomach disorder.
69	Bat	<i>Rousettus rousettus</i>	Watwaghul	Mammalia	Raw flesh is used to cure asthma.
70	Pig	<i>Sus crofa domestica</i>	Dukar	Mammalia	Feces matter is used on neck. Tumour. It mix with oil & applied on tumour. Meat is cooked and eaten for increasing immunity power.
71	Mongoose	<i>Herpestes edwardsii</i>	Mungus	Mammalia	Meat is cooked and eaten for joint pain.
72	Hare	<i>Lupus nigricollus</i>	Jangali sasa	Mammalia	Meat is given to cure menstrual disorder.
73	Rabbit	<i>Oryctolagus cuniculus</i>	Sasa	Mammalia	Blood of rabbit is used to cure asthma.
74	Goat	<i>Capra indica</i>	Bakara	Mammalia	Milk is used for eye infections and anal infections. Urine is used for caugh& asthma.
75	Bull	<i>Bos taurus</i>	Bail	Mammalia	Leg infection, powder of bone is used.
76	Dog	<i>Canis familiaris</i>	Kutra	Mammalia	Flesh soup improve health &cure fever.
77	Buffalow	<i>Bos Sp.</i>	Mahais	Mammalia	Meat promotes strength, virility & physique Ghee, Curd & Milk is very imp for vitamins.
78	Fox	<i>Vulpes vulpes</i>	Kolha	Mammalia	The flesh cooked & eaten. It relieves joint pain & fever.
79	Barking Deer	<i>Cervulus muntiac</i>	Bhekadi	Mammalia	The leg soup relieves chest pain &rhetic pain & fever.

80	Chital	<i>Axis axis</i>	Chital	Mammalia	Fat of chital massaged by tribes in piles and burns & meat is edible gives resistance power.
82	Common Langur	<i>Presbytis entellus defresne</i>	Bandar	Mammalia	Smoke of tail is used to treat cattle diseases.
83	Leopard	<i>Panther pardus</i>	Bibat	Mammalia	Ash of burned hair is applied to treat foot & mouth diseases. Fat is used as massaging oil for body pain
84	Wolf	<i>Canis lupus</i>	Landaga	Mammalia	Meat is edible gives strength, virility.
85	Tiger	<i>Panthera tigris</i>	Wagh	Mammalia	The claws warm in neck are supposed to good health & vigaur.
86	Elephant	<i>Elephus maximus</i>	Hatti	Mammalia	Teeth are used for skin treatment & itching portion of toe.
97	Human being	<i>Homosepian sepian sepian</i>	Manus	Mammalia	Urine of human used to tread wounds and it drinks to cure piles.
88	Striped Hyena	<i>Hyena hyena Lim</i>	Tadas	Mammalia	Brain mix with wheat flour is used to cure epilepsy.

DISCUSSION

Animals have been used for medicinal purpose since colonial times in India and they still play significant role in current folk healing practices. Various publications have shown the importance of zotherapy to traditional communities in various socio-culture environments in India (Mahawar and Jaroli, 2006).

Since ancient time animals and their products have constituted part of inventory of medicinal substance used in various cultures. Different parts of single species provided the raw material to prepare different remedies, which are prescribed to treat various diseases. The possibility of using various remedies for the same disease is popularly valued, as it is rendered an adaptation to the availability for the animal possible (Alves and Rosa, 2006). On the other hand, different species were sometimes using to treat same illness. This strategy is important because many species have marked seasonality (Alves *et al.*, 2009). Zotherapeutic products are mainly used for the treatment of respiratory system diseases. Animals provide the raw materials for remedies used to treat physical and spiritual disease. The use of some Zotherapeutic resources is associated with popular beliefs (Alves and Rosa, 2006, 2007; Alves *et al.*, 2007, 2008; 2009). In India nearly 15-20 percent of the Ayurvedic medicine is based on animal derived substances. The Hindu religion has used 5 products (milk, urine, dung, curd and ghee) of the cow for purification since ancient times (Simoons, 1974). Different animals used by the Naga tribe of Nagaland (Jamir and Lal, 2005). Also tribe of Nagaland (Mahawar and Jaroli, 2008), Irular, Kurimba of Tamilnadu (Solavan *et al.*, 2004), Kuhchch (Gujarat) (Alves and Rosa, 2005), Kanikar, Paliyar of Tamilnadu (Ranjith Sing and Padmalatha, 2004), Bhil, Gamit, Kokna etc of Maharashtra (Patil, 2003), Bhil of Rajasthan (Sharma, 2002), and Gond, Kolam, Pardhan, Mana and Madiaya residing in this part of India.

Tribals use a wide variety of animal products and animal derived parts in their medicine. Some species of mammals have been proved as a vital source of tribal medicine. Many diseases such as tuberculosis, rheumatic, joint pains, asthma, piles, night blindness, paralysis, debility, etc. are cure with this traditional medicine. Fats derived from different animals have been proved to be most important and useful medicines for muscle pain, rheumatism, paralysis, skin burns and rickets.

The fat of wild bear and tiger has got most importance. The use of bear bile for high fever seems to be very common in tribal medicine. Flesh of different animals is used in general weakness and many diseases. Tribals also use human urine to cure some kinds of infections. The urine of healthy non-pathological man contains urea, uric acid, creatinine and xanthene which have potentially active antiseptic action. Many animal products used in tribal medicine have been identified so far for further scientific investigation is required. Fat derived from more animal's specially wild animals, seems to be very effective medicine in curing all sorts of pain including rheumatic pains. Fat is also used externally as a remedy for pain, skin burn and paralysis. Many of the animal oriented drugs used by tribals are worth of further scrutiny. Hence medicinal or nutritive quality of all the animal species becomes the need of hour. The use of animals for medicinal purpose is part of traditional knowledge, which is increasingly becoming more relevant to discussion on conservation biology, public health policies and sustainable management of natural resources, biological prospecting and patents.

CONCLUSION

From the present study it may be concluded that, the tribal people of Jiwati Taluka still faith in traditional medicine derived from the animal's parts for the treatment of patient. The community of Taluka Jiwati also plays a vital role in conserving domestic animals diversity, but due to some modern practices, their traditions and customs are also under threat caution so policy makers should take steps in conservation of biodiversity. A total of 88 animal species were identified for the various kinds of medicinal purposes used by Gond, Kolam, Madia, Pardhan and Mana tribes inhabitants of village surroundings area of Jiwati Taluka. My study also shows that tribes and rural people have very rich folklore and traditional knowledge in the utilization of different animal. So there is an urgent need of proper record and documentation of the ethno medicinal data

ACKNOWLEDGMENT

Author thankful to Principal Janata Mahavidyalaya Chandrapur (M.S.) for Providing necessary facilities and also to the local and tribal peoples of Jiwati Taluka whose cooperation during this work could make this manuscript possible.

REFERENCE

- Adeola, M.O. 1992. Importance of wild animals and their parts in the culture, religious festivals, and traditional medicine, of Nigeria. *Environmental Conservation*. 19(2): 125-134.
- Alves, R.R.N., and I.L. Rosa. 2007. Zootherapeutic practices among fishing communities in North and Northeast Brazil: a comparison. *Journal of Ethnopharmacology*. 111 (1).
- Alves, H.N., M.C. Lima., W.S.M. Tavares, R.R.D. Souto and A. Barboza. 2008. Animal-based remedies as complementary medicines in Santa Cruz do Capibaribe, Brazil. *BMC Complementary and Alternative Medicine*. 8 (44).
- Alves, N., I.L. Rosa, and G.G. Santana. 2007. The role of animal-derived remedies as complementary medicine in Brazil. *Bioscience*. 57(11): 949-955.
- Alves, R.R., and I.L. Rosa. 2005. Why study the use of animal products in traditional medicines? *J. Ethnobiol. Ethnomedicine*. 1:5.
- Alves, R.R.N., and I.L. Rosa. 2006. From cnidarians to mammals: the use of animals as remedies in fishing communities in NE Brazil. *Journal of Ethnopharmacology*. 107 (2): 259-276.
- Alves, R.R.N., N.A. Leo Neto., G.G. Santana., W.S.L.Vieira and W.O. Almeida. 2009. Reptiles used for medicinal and magic religious purposes in Brazil. *Applied Herpetology*. 6 (3): 257-274.
- Gupta, L., C.S. Silori, N. Mistry and A.M. Dixit. 2003. Use of Animals and Animal products in

- traditional health care systems in District Kuchchh, Gujarat. *Indian Journal of Traditional Knowledge*. 2(1):346-356.
- Jamir, N.S., and P. Lal. 2005. Ethnozoological practices among Naga tribes. *Indian Journal of Traditional Knowledge*. 4(1): 100-104.
- Mahawar, M., and D.P. Jaroli. 2008. Traditional zootherapeutic studies in India. A review. *Journal of Ethnobiology and Ethnomedicine*. 17 (4).
- Mahawar, M.M., and D.P. Jaroli. 2006. Animals and their products utilized as medicines by the inhabitants surrounding the Ranthambhore National Park, India. *Journal of Ethnobiology and Ethnomedicine*. 2: 46.
- Mahawar, M.M., and D.P. Jaroli. 2007. Traditional knowledge on zootherapeutic uses by the Saharia tribe of Rajasthan, India. *Journal of Ethnobiology and Ethnomedicine*. 3: 25.
- Patil, S.H. 2003. Ethno-medico-zoological studies on Nandurbar district of Maharashtra. *Indian Journal of Traditional Knowledge*. 2:82-103.
- Ranjith Sing, A.J.A., and C. Padmalatha. 2004. Ethnoentomological practices in Tirunelveli district, Tamil Nadu. *Indian Journal of Traditional Knowledge* 3(4): 442-446.
- Sharma, S.K. 2002. A Study on Ethnozoology of Southern Rajasthan in Ethnobotany. In *Ethnobotany* Edited by: Trivedi P.C. Jaipur: Aavishkar Publisher. pp: 239-253.
- Simoons, F.J. 1974. The purification rule of the five products of the cow in Hinduism. *Ecology of Food and Nutrition*. 3:21-34.
- Sodeinde, O.A., and D.A. Soewu. 1999. Pilot study of the traditional medicine trade in Nigeria. *Traffic Bulletin*. 18:35-40.
- Solavan, A.R., A. Paulmurugan, V. Wilsanand, A.J.A. Ranjith Sing. 2004. Traditional Mtherapeutic uses of animals among tribal population of Tamil Nadu. *Indian Journal of Traditional Knowledge*. 3(2):206-207.
- Trivedi, P.C. 2002. An overview in Ethnobotany. *Ethnobotany*. Aavishkar publisher Jaipur: 1.
- V´azquez, P.E., R.M. Mendez, O.G.R. Guias-on and E.J.N. Piñera. 2006. Medicinal Use of Wild Fauna In Los Altos De Chiapas, Mexico. *Interciencia*. 31(7): 491-499.