

**ICHTHYOTHERAPY: USE OF FISHES AS MEDICINE BY ETHNIC KARBI PEOPLE OF ASSAM, INDIA**

Tapashi Gupta\* and Mithra Dey

Department of Zoology, Lumding College, Lumding-782447.  
Department of Ecology and Environmental Sciences, Assam University, Silchar.

\*Corresponding Author: Dr. Tapashi Gupta

Department of Zoology, Lumding College, Lumding-782447.

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**ABSTRACT**

In India from primitive time animals are used as medicine to cure different diseases. The present article describes the traditional knowledge of the ichthyotherapy, the use of fishes as medicine to cure different diseases by Karbi communities of Assam. Through the structured questionnaire survey of 50 elderly people of 10 villages of Diphu, Karbi anglong, Assam was interviewed. Respondent listed about 15 species of fishes, which are used in primary health care needs of human being. Head, blood, bile, flesh are most commonly used parts to treat diseases such as asthma, cough and cold, small pox, kala-azar, diarrhea, malaria etc. The findings are more important for remedial measure and documentation although these have to be tested scientifically and clinically. It is essential to study in detail the use of these fish parts which may in future help medical science and also call for conservation of these fishes. The present ethnozoology work has been studied from different published research paper of various author of zootherapeutic studies in India from 2002 to 2015 and it gave us an idea that many types of diseases are cured by animal and their product.

**KEYWORDS:** Ichthyotherapy, Fish Body Parts, Cure, Disease, Karbi Community.**INTRODUCTION**

The World Health Organization (WHO) estimates that as many as 80% of the worlds more than six billion people rely primarily on animal and plant based medicines.<sup>[1]</sup> A lot of effort has gone into documentation, use, identification and validation of plant based traditional medicines but studies on most of the animal based medicines are sporadic, despite the fact that traditionally animal based drugs are administered all over the world.<sup>[2,3]</sup> In Unani and Ayurvedic system of medicines there are descriptions of many animal based medications.<sup>[4,5]</sup> The use of animals for medicinal purpose 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 resources, biological prospects and patents.<sup>[6]</sup> Research interest and activities in the area of ethnobiology and ethnomedicine have increased tremendously since last decade. 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 different ethnic communities before the traditional cultures are completely lost.<sup>[7]</sup> Different animals used by Naga tribe of Nagaland<sup>[8]</sup>, Ao tribe of Nagaland<sup>[9]</sup>, Negi and Palyal studied about Shoka tribe of Darma and Johar valleys of Uttaranchal, India and there has some or other relevance with the animals that are found to be use by

Karbis of Assam India.<sup>[10]</sup> Several research work on medicinal plants has been done and documented in Karbi Anglong district of Assam but there is definitely scarcity on medicinal animal products specially on ichthyotherapeutic medicines. The present paper deals with the ichthyo therapeutic aspects of the karbi tribes of Karbi Anglong district of Assam and highlights on traditional knowledge of Karbi tribe pertaining to animals particularly fishes and their products used in traditional medicines.

**Study Area**

Karbi Anglong district is situated in the central part of Assam between 25°33' - 26°35'N and 92°10' - 93°50' E having a geographical area of 10,434 Km<sup>2</sup> of which 41.12% is covered by forest. It is bounded by Nagaland in the east, Meghalaya in the west, Golaghat and Nagaon district in the north and North Cachar Hills in the south. The Karbis are one of the major tribes of the North-Eastern region of India. Though they are scattered over all the sister states of the region, mainly they resides in Karbi Anglong and North Cachar Hills district of Assam. Karbis are mainly agriculturists and practice shifting cultivation of multiple crops. Ethnobiological and traditional knowledge of the Karbis have been reported by various authors.<sup>[11-16]</sup>

**MATERIALS AND METHOD**

Data were obtained through field survey conducted during January 2016- December 2016 following structured and unstructured questionnaire method. 50 elderly people of 10 villages of Diphu, Karbi angling were randomly selected. The selection of the informants was based on the recognition as experts and knowledgeable members concerning folk medicine. A list of fifteen species of fishes and their products, nature of ailments method of preparation (parts used) and mode of treatments has been presented in this paper. All the fish species were identified by using relevant data, books and standard literature and deposited in the Department of Zoology, Lumding College, Lumding

**RESULTS AND DISCUSSION**

The present study describes traditional knowledge of treating various ailments using fish and their body parts among the karbis of Karbi Anglong District of Assam. In the present study we enlisted 16 species of fishes which are being used for near about 30 ailments. These fishes are used as whole or body parts for the treatment of different kinds of ailments like Kala-azar, malaria, small pox, night blindness, common cold, rheumatoid arthritis etc. Traditional health care practices among Karbis include oral therapy, contact therapy, by preparing solutions. Scientific name, local name, parts used and method of application is given in Table.

**Table: Use of Ichthyofauna by The Karbis of Assam as Their Traditional Health Care System.**

Scientific name	Local name	Parts used	Disease condition	Method of Application
Channa punctatus	Ok-meklot	Eyes	Corn or Clavus	Eyes mixed with common salt is applied to the affected part to remove corn.
Channa gachua	Ok-langso	Whole fish	Abdominal pain	Boiled fish is prescribed to eat.
		Bile	When picked by thorn.	Bile of the fish is applied to remove the thorn.
Puntius sp.	Manthu fermented	Whole fish	Blood purifier	It is cooked with bamboo shoot and taken to purify blood.
			Common cold	It is cooked with chilli is taken to cure common cold.
Anguilla bengalensis	Nujung	Fats	Rheumatoid arthritis	Fat is applied and message to relieve pain.
Monopterus cuchia	Kunchirui	Whole fish	Kala-azar	Raw fish is taken orally or fresh blood of the fish is consumed.
		Raw blood	Entry of leech into anus	Fresh raw blood is consumed to remove leech from anus.
Amphipnous cuchia	Kunchirui	Meat	Pre-menstrual abdominal pain	Boiled fish is prescribed to eat.
		Blood	Anemia	Raw blood is consumed.
Labeo pangusia	Notun	Flesh	Weakness	Used as tonic.
			Weakness after delivery	Boiled fish is taken regularly to regain strength.
		Bile	Stomach ache	Bile is taken orally to relieve stomach pain.
H. fossilis	Singki	Whole body	Anemia	Boiled fish is consumed as tonic.
		Brain	Sting by the fish itself	Brain is consumed raw when stung by the fish as analgesic.
Wallago attu	Seketa	Head	Liver tonic	Boiled head is taken regularly to improve liver function.
Xenotodon cancila	Kokil mas	Whole fish	Joint pain, Swelling	Cooked and consumed. Spine and bone is used to pick out the clotted blood.
Amblypharyngodon mola	Moa	Whole fish	Pre-menstrual pain	Boiled fish is prescribed to eat.
Clarias batrachus	Nagur	Whole fish	Small pox	Cooked fish is eaten to cure small pox
			Weakness after delivery	Boiled fish is taken regularly to regain the strength.
Mystus sp.	Tengara	Whole fish	Small pox	Cooked fish is taken to cure small pox
Chaca chaca	Kurkuri mas	Whole fish	Polio	Dried fish is boiled or cooked with vegetables and spices and prescribed to eat.
Anabas testudineus	Kaoi mas	Whole fish	Dysmenorrhea	Head portion is boiled with spices and prescribed to eat.
Notopterus notopterus	Kanduli mas	Whole fish	Deliver pain, Abdominal pain	The fish is burned and cooked with black pepper and prescribed to eat.

**CONCLUSION**

In modern societies, zotherapy constitutes an important alternative among many other known therapies practiced worldwide. Wild and domestic animals and their by products (e.g. hooves, skins, bones, feathers, and tusks) form important ingredients in the preparation of curative, protective and preventive medicine.<sup>[17]</sup> Ichthyotherapy is the healing of human diseases by the use of therapeutics obtained or derived from fishes. Local community's knowledge in the use of fish resources is very important for conservation efforts directed at protecting the wildlife. Folk medicine practitioner tends to have extensive knowledge of the ecology and use of local flora and fauna. However, as many local cultures are increasing threatened, the need to document their knowledge of fishes and other animals for medicinal and other uses becomes more urgent. Doing so will further help to protect the ecosystem and environment in general.

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**REFERENCES**

1. WHO/IUCN/WWF Guidelines on conservation of Medicinal plants Switzerland, 1993.
2. Pushpangdan P. Animal and animal products in the health traditions in India. Proceeding 11nd International Congress on Ethnobiology, 1990; 189.
3. Neto E M C. Traditional use and sale of animals as medicines in Feira and Santana city, Bahia, Brazil. *Indigenous Knowledge Development Monitor*, 1999; 7: 15.
4. Ali S A M and Mahadihassans, *Bazar Medicines of Karachi: The drugs of animal origin*, Medicus, 1961; 23: 23.
5. Puri, H.S. *Drugs of animal origin used in Indian Systems of Medicine*, Nagarjun, 1970; 13: 21.
6. Alves R.R. and Rosa I.L.: Why the use of Animal Products in traditional medicines? *Ethnobiol Ethnomedicine*, 2005; 1: 5 doi: 10.1186/1746-4269-1-5.
7. Trivedy P.C. 2002. *Ethnobotany: An overview*. In Trivedi PC editor. *Ethnobotany*, Jaipur: Avishek Publisher, P.1.
8. Jamir N.S. and Lal, P. Ethnozoological practices among Naga tribes. *Indian Journal of Traditional Knowledge*, 2005; 4: 100-104.
9. Kakati, L.N. Bendang Ao and Doulo, V., *Indigenous Knowledge of Zootherapeutic use of Vertebrate origin by Ao Tribe of Nagaland*. *J Hum. Ecol*, 2006; 19: 163-167.
10. Ranghang, Ranjit., Teron, Robindra., Tamuli, Ajit and Rajkhowa, Ratul, *Traditional Zotherapy Practiced among the Karbis of Assam (India) Ecoscan Spl.*, 2011; 1: 161-166.
11. Sarkar, 1993. *Studies of Herbaceous Plants of Karbi Anglong District of Assam with reference to their Taxonomy and Economic Utilization*, PhD Thesis, Gauhati University, Guwahati, Assam, India.
12. Teron, R. Bottle guard. Part and Parcel of Karbi Culture, *Indian Journal of Traditional Knowledge*, 2005; 4(1): 86-90.
13. Teron, R. Hor, the traditional alcoholic beverage of the Karbi tribe in Assam. *Natural Product Radiance*, 2006; 5(5): 377-381
14. Teron, R. The traditional Wood Craft, Jambili Athon of the Karbis, *Indian Journal of Traditional Knowledge*, 2008; 7(1): 103-110.
15. Teron, R and Borthakur, S.K. Traditional knowledge relating to use of flora and fauna as indicators in predicting annual seasons among Karbi tribe of Assam. *Indian Journal of Traditional Knowledge*, 2009; 8(4): 518-524.
16. Teronpi, V., Singh HT., Tamuli, AK., Teron R. Ethnozoology of the Karbis of Assam: Use of ichthyofauna in traditional health care practices. *Ancient Sci. Life*. 2012; 32(2): 99-103
17. Adeola, MO. Importance of Wild animals and their parts in the culture, religious festivals and traditional medicines of Nigeria. *Environmental Conservation*, 1992; 19: 125-134.