



## Ethno-medicinal importance of crabs

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### Abstract

The therapeutic use of animal, animals' parts and their byproducts by ethnic groups to cure different diseases is known as ethno-medicine. In Nepal there are more than 100 ethnic groups; most of them are using surrounding natural resources to cure many diseases using traditional knowledge. Crabs are consumed not only to fulfill the nutrient requirements but also to cure diseases. This review was done to know the use of crab to cure various disease throughout the world and found using many crabs to cure disease like Asthma, miscarriage problems in women, typhoid, dysentery, liver disease, healing wound, bronchitis, pneumonia, osteoporosis, boils, womb disorders, tuberculosis, earache, burns, epilepsy and reproductive malfunction.

**Keywords:** analeptic, *Barytelphusa lugubris*, diseases, ethnic group, healing

### Introduction

Ethno medicine can be defined as traditional use of animals, plants and their byproducts such as bodily secretion, and non-animal materials like nest, cocoon and metabolic products to cure disease by using the indigenous knowledge (Costa-Neto 2005). It is multidisciplinary science that deals with using the surrounding natural resources. The term "ethno-zoology" as a branch of science that deals with the role of economically important animals in life and socio-cultural aspects of tribal or aboriginal peoples. Ethno-zoology focuses at direct relationship of animal to mankind. Human beings are using the plants, animals and their byproducts since the unmemorable time. Since origin of human life ethno-zoology deals with study of relationship between the human societies and the animal resources (Bagde and Jain 2015) [4]. Mankind and animal relationship has been familiar from the beginning of civilization. Animals have been playing vital role in human economy, culture, religion. The ethnic group in turn has been maintaining a healthy natural environment by sustainable use of the natural resources. Since origin of human being, animals and the byproducts extracted from them have been used to cure various diseases in the remedial schemes of many cultures. Not only has the ancient system, modern medicinal system also utilized animal based medicine. Ethno-medicine focuses on the understanding of native and ethnic use of medicines and therefore an emic approach is unavoidable.

Beside vertebrates, all aquatic resources like rivers, ponds, lakes, streams, estuaries, seas and oceans are occupied by many macro and micro-crustaceans. Among crustaceans, decapods brachyuran crabs are one of most diverse group, found in a wide variety of habitat (Hartnoll, 1988) [11] with the exception of Antarctica they have been reported from almost all the niches of ecosystem. They have been found at abyssal depths of the Ocean down to 6000 m (Ng, *et al.*, 2008) [16] and to the high mountains up to 3500 m above the sea level (Brandis and Sharma, 2005 and 2004) [5, 6].

### Ethno-medical value of crab

Generally, in the public tongue crab is considered as unpleasant bellicose. The word 'crab' means eager to fight or in other word always ready to fight. In many languages crab is considered a synonym of nasty or complaining disposition. The Latin word for crab is cancer, and is considered as one of the world's most deadly disease. But it is one of the most multi-useful decapods crustaceans of the Infra Order Brachyura.

Crabs are ethno-zoologically as well as medicinally important creatures. According to the traditional belief medicinal liquor prepared by baking the crab shell enriches the calcium supply of the body (Sriphuthorn 2000) [19]. Analeptic use of crab curry for cold, asthma and typhoid and it is given as tonic to ailing patients (Agarwal 1985) [1]. The tonic derived by pounding the whole body of freshwater crabs in a mortar is used to detoxify the blood (Sriphuthorn 2000) [19]. It is also believed that chitin enriched crab's shells help to reduce cholesterol and triglyceride level in the blood.

Crabs are put to various medicinal uses. One of the most interesting is the role of *Potamonautes raybouldi*, the tree hole crab of the East Usambara Mountains in Tanzania and the Shimba Hills in Kenya (Dobson 2010) [10] which prevent the problem of continuous miscarriage in pregnant women for which both the crab and alkaline water of tree hole is administrated. In Egypt, Obe (1931) [17] reported that the whole crabs are eaten by childless women in the belief of becoming pregnant. Lohani (2011) [14, 15] found whole body of *Himalayapotamon. atkinsonianum* is crushed into fine powder and mixed with water to get a smooth paste. The mixture is taken orally to cure dysentery, crushed crab powder is also applied for healing the bleeding wound and Asthma patients eat roasted crab for relief in Jirel tribe of Nepal. Again in the same year she found *Barytelphusa lugubris* to enhance memory among the ethnic group Magar of central Nepal. Jamir and Lal (2005) [12] recorded that the *Cancer pararus*

curing jaundice and other liver diseases in Naga tribes when the whole body of crab is crushed into a paste and boiled in water to prepare a drink. Chinlapianga (2005) <sup>[7]</sup> found *Scylla serrate* in the northeast India to cure diabetic patient and also cure skin diseases. In Latin America Alves and Alves (2011) <sup>[3]</sup> recorded, *Cardisoma guanhumi* in curing Asthma, bronchitis, wounds, boils; *Goniopsis cruentata* for the treatment of Epilepsy, venereal diseases; *Plagusia depressa* act as neutraceutical for Epilepsy; *Emerita portoricensis* in remedial uses of Earache; *Ocypode quadrata* in curing asthma and hemorrhage in women, flu, to alleviate the symptoms of intoxication with poison of Naquin (Pisces, Batrachoididae); *Ucides cordatus* in Hemorrhage in women, incontinence urinary, osteoporosis, cough, asthma, tuberculosis, womb disorders, arthrosis, bronchitis; *Uca maracoani* in curing Asthma, whooping cough. Similarly, Dev Roy (2014) <sup>[9]</sup> Collected 22 species of brachyuran crabs from various parts of the world including India, Nepal and Brazil, etc. and are mostly used to treat diseases like whooping cough, bronchitis, pneumonia, asthma, osteoporosis, wounds, boils, womb disorders, tuberculosis, earache, burns and epilepsy, and hermit crabs for earache, urethritis, malaria, stomach pain, jaundice and other liver disorders. Kakati and Doulo (2002) <sup>[13]</sup> found that Tribe of Nagaland, Chakhesang India use *Cancer pararus* to cure Urethritis in which crab's whole body dissolved in water is orally administered. The powdered exoskeletons of crab are used as a supplementary for the poultry, piggery and other domestic animals and also as fertilizer in agricultural operation (Agarwal and Kumar, 1987, Peter, N. and Panning, A. 1933) <sup>[1]</sup>. Beside, food values the crabs are medicinally importance to.

### Conclusion

Traditionally the crabs were being used to cure various diseases in cultural way by different tribes, but this needs to be experimentally and scientifically verified, so that medical science could make drugs in commercial way to cure particular disease through natural medicine.

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