

***Crotalaria sericea* - A miraculous ethnomedicinal plant for snake bite in north western tarai forest of U.P. - A new report**

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Abstract

During the taxonomic and ethnomedicinal survey for the Flora of the Dudwa Tiger Reserve on Nov 24, 2006 along with M.Sc. Botany students the authors were introduced by their guide Sri Baddal Ram Rana, a local Tharu tribe, to a miraculous ethnomedicinal plant, locally named as Van Sanai. The author were told by Mr. Rana that the leaf juice of the plant has a miraculous effect in case of snake bite. If a tea spoonful of leaf juice is anyhow administered to the patient through mouth, the effect of snake bite is neutralized within a very short time. Mr. Rana is resident of village Muen Nuchani (a tharu villege) P.O. Parsia, P.S. Chandan Chauki, Distt. Kheri Lakhimpur. His statement was later confirmed by Mr. Kewal Singh Rana resident of the same village and also working as guide over there, Mr. Mihi Lal Dangaura, a witchery (an elderly Jadu Tona specialist) resident of village Balera P.O. Dhuskiya, Distt. Kheri Lakhimpur and Mr. Rahul Kumar Singh resident of Village & Post Semra Hardoo Distt. Kushinagar (U.P.).

Van Sanai was found in very few number in sporadic manner at Kharighat bank of Suheli River in Sonaripur range of Dudwa National Park. According to Sri Y.P. Shukla, The Chief wild life warden, Dudwa Tiger Reserve, the habitat of Van Sanai is a low land grass land vegetation having water logging for about 4-6 months starting from pre monsoon to upto retaining monsoon period. Van Sanai is identified as *Crotalaria sericea* Retz (Fabaceae) with the help of FUGP, 1994 and latter confirmed by Prof. S.K. Singh Retd. Prof. and Head of Botany, DDU Gorakhpur University, Gorakhpur.

The same plant but Single in number was observed by the author near Nishangara Forest Rest house in Kakarha Forest range of Katarniaghat wild life reserve of Distt. Bahraich on Jan 05, 2007 during survey. Since the plants are very few in number can be considered as endangered species, they are at the brink of extinction but mira culous and ethnomedicinally very important hence the plant needs conservation.

Key Words : *Ethnomedicine, snake bite.*

Introduction

India is one of the twelve mega biodiversity countries of the world having rich vegetation with a wide variety of plants with medicinal value. Plants with medicinal value enjoyed the highest reputation in the indigenous system of medicine all over the world (Mehrotra, 1989). The two great epics- The Ramayana and Mahabharata which have originally written in Sanscrit language also have mention of numerous plant names and their role in the life of people of those days (Rao, 1989). Dudwa Tiger Reserve, which is one of the hot spot of biodiversity, situated in Kheri district of U.P. (India). The region is full of flora, fauna and Tharu tribal population. The indigenous traditional knowledge of medicinal plants which is mostly undocumented and transmitted orally from generation to generation, is fast disappearing from the face of world due to advent of modern civilization. The present study was under taken with a aim to collect and document the traditional indigenous knowledge of the plants and their ethnomedicinal use before its lost for ever.

Dudwa Tiger Reserve lies on the India Nepal border in the foot hills of the Himalaya and the plain of 'Tarai' region. The study area lies between 28° 30' 60" N and 80° 41' 0" E and comprises 884 km² of Kheri district, Uttar Pradesh. The Tharus of Kheri district, live in villages situated in the vicinity of the Dudwa National Park and adjoining the territory of Nepal. The district is bounded on the East by the district Bahraich, on the South by Sitapur and Hardoi, on the West by Shajahanpur and Pillibhit district and on the North by the

territory of Nepal separated by the river Mohan. There are 41 Tharu villages in Kheri district, occupying an area of 8,194 hectare in the vicinity of Dudwa National Park. The district is inhabited mainly by the Rana Tharus, Danguria Tharus and Kathurias Tharu population.

Methodology

The survey was made on Nov 24, 2006 in Dudwa Tiger Reserve with M.Sc. Botany students to collect the ethnomedicinal plant and their ethnomedicinal use, under the guidance of Sri Baddal Ram Rana and Sri Kewal Singh Rana (both a local Tharu tribe) resident of village Muen Nuchani (a Tharu village) P.O. Parsia, P.S. Chandan Chauki, Distt. Kheri Lakhimpur. Questionnaire method was adopted for documentation of folk indigenous knowledge about medicinal plants and herbs (Shah, 2007). During the field survey, the plants were collected and their use by inhabitants were recorded in the field books. All the collected plants were pressed, dried, preserved, mounted and identified through the available taxonomic literature (F.U.G.P. 1994) and latter confirmed by Prof. S.K. Singh Retd. Prof. and Head of Botany. D.D.U. Gorakhpur University, Gorakhpur. All the collected and preserved plant specimens were deposited in the Herbarium maintained in the department.

Results and Discussion

After the survey of Dudwa Tiger Reserve about 55 plant species belonging to different family were collected. Out of these species the present study deals with an important medicinal plant of *Crotalaria sericea* Retz. (Fabaceae) locally called as Van Sanai, collected at Kharighat bank of Suheli river in Sonaripur range of Dudwa National Park. Our guide, Mr. Rana told us about the plant that the leaf juice of plant is very effective in case of snake bite. His statement was latter confirmed by Mr. Mihi Lal Dangaura a witchery resident of village Balera P.O. Dhuskiya, Distt. Kheri Lakhimpur and Mr. Rahul Kumar Singh resident of Village & Post Semra Hardoo Distt. Kushinagar (U.P.). It is an robust under shrub, 3-4 ft. high, branches stout, striated, nearly glabrous. Leaves shortly stalked, 2.6in. long, oblong, lanceolate, acute, glabrous, above finely silky beneath, stipules large, leafy, persistent. Racemes terminal, often one foot long, bracts ovate, leafy, persistent, pedicels longer than the calyx. calyx ½ in. long nearly glabrous. Corolla 4/5 in. much exerted, yellow colour. Flower during the cold season (F.U.G.P., 1994).

The man has deep involvement with plants and forest not only through history, culture, religion and philosophy but also through their livelihood. The local used of plants as a cure is as old as human civilization (Behera, 2006). Forest are the reservoir of medicinal plants and play a vital role in the economy of the Tharus. The tribal people of Kheri district who are residing in villages are very poor, illiterate and mostly dependent on the forest wealth and ambient vegetation for their food, clothing, oil, fibre, housing and medicine. They utilize root, rhizome, stem, leaf, flower, fruit and seed of medicinal plant in different ailments such as fever, cough, bronchitis, asthma, rheumatism, earache, toothache, leucorrhoea and as antidote to snake bite and scorpion sting. Medicinal plants have several curative properties due to the presence of various chemical substances of different composition. *Crotalaria sericea* Retz. have several important medicinal value but since the plant is found very few in number in the study area hence the conservation and regeneration of the plant is necessary. It is hoped that chemical analysis of the plants

and their pharmacotherapeutics will provide much needed lead for further research and new drug development.

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