

## Orchids in indigenous system of medicine in Nagaland, India

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### Abstract

Orchids represent one of the most important groups of flowering plants in Nagaland. Besides ornamental value orchids are long known for their medicinal usage especially in the indigenous system of medicine by different ethnic communities world over. The present paper enumerates the ethnomedicinal uses of orchids of Nagaland and the way the plants/plant parts are used against various ailments. In one hand preservation and perpetuation of such ethnobotanical knowledge is necessary for the benefit of mankind on the other hand it is necessary to conserve these plants for their sustainable utilization and also saving them from extinction.

**Key words:** Ethnobotanical orchids, Indigenous medicines, Nagaland

### INTRODUCTION

Orchids are known to mankind for the last several centuries for their beautiful attractive flowers. Orchids are also valued for their curative and therapeutic purpose since 'Vedic period' (Handa 1986; Sathish Kumar & Manilal 1994; Deb & Imchen 2008). The medicinal value of orchids is found recorded as early as 250 – 300 BC. by *Susruta* and *Vagbhata* from ancient Sanskrit literature. In Indian Vedic scriptures mentioned the orchids in Sanskrit as "*Vanda*" a name adopted for one of the most beautiful and common monopodial group of orchids (Deb & Imchen 2008). In ancient China during 2800 B.C., there are records of some species of orchids used for medicinal purposes (Luning 1974; Hegde 1984; Paul & Hegde 2001).

In fact, the name "Orchid" designates the medicinal potential of this group of plants and the word orchid got its name from '*Orchis*' meaning 'testes' describing the testicular shaped bulbs of many orchids which had been valued for their medicinal value in treating human virility. Even today, number of ethnic communities in India and other parts of the world use several species of orchids in their traditional system of medicines. Thus, apart from ornamental value, orchids also are of ethnobotanical interest linking aboriginal man with plants for medicine (Paul & Hegde 2001; Deb & Imchen 2008 and Roy *et al.* 2007) in indigenous system of medicines in many countries including India.

Nagaland is a remote and rural state in the northeastern part of India. More than four-fifths of the population lives in small, isolated and remote villages. Nagaland has basically an agricultural economy and mainly depends on forests and forest products for food, fodder and medicines. Over 80 % of the people depend on indigenous system of medicine. The Nagaland is an important reservoir of orchids and Deb & Imchen (2008) recorded the occurrence of 396 species under 92 genera in this state. A large number of local orchids find important place in ISM in Nagaland. In Nagaland, the natives called these plants *Ayikhow* (Sema Tribe), *Konroja* (Ao Tribe) from its primary meaning of 'Skin' as many species they use as ornaments and is a good indication of ethnobotanical significance of this group of plants. The present communication is a list of ethnobotanical important orchids those are occupying important place in ISM in Nagaland.

### MATERIALS AND METHODS

The present study was aimed at gathering information on the folklore medicinal uses of orchids in Nagaland. For this purpose, surveys were made in different parts of Nagaland and interactions were made with the local people including tribal and folk medicine practitioners. Plants were recognized in the field by the users themselves. Voucher specimens were collected and processed into

mounted herbarium sheets (Jain & Rao 1977). Plants were identified using available literature and matching at the Nagaland University Herbarium. Collected information has been presented in Table 1. Specimens will be deposited to the Nagaland University Herbarium.

## RESULT AND DISCUSSION

Fifteen species of Nagaland orchids recorded here those are commonly used medicinally. Local folk practitioners used these plants even against many difficult diseases like rheumatism, cholera, nervous disorder, tuberculosis etc. and also as antibacterial agent and antidotes to snake and insect bites. It has been perceived that the species enumerated in Table 1 is not the exhaustive and there may be many other orchids used by them specially in combination with one or more other plants. However, with the inroad of modern techniques of medical science the ISM is losing its ground also in this remote state of India. Unregulated and uncontrolled collections of medicinal plants including orchids these plants are becoming rare and endangered in their natural habitat. It is therefore, essential to take up mass propagation projects including seed culture and micropropagation for some selected orchids for their proper conservation. Adoption of these technologies will ease the pressure considerably on the natural vegetation. At the same time proper efforts should be taken to record all traditional ethnobotanical knowledge of all the Nagaland tribes at the earliest. This will, in future, provide the basic back-ground information or lead for the development of many safe but modern plant based medicines for the benefit of mankind.

**Table 1.** Ethnobotanically important medicinal orchids of Nagaland and their uses.

Name of plant [ExsiccatuS]	Habit	Distribution	Utility
<i>Acampe papillosa</i> (Lindley) Lindley [Tem-105]	Epiphyte	Mokokchung, Zunhebhoto	Root extract taken orally to get relief from rheumatism
<i>Calanthe triplicata</i> (Willemet) Ames [Tem-109]	Terrestrial	Mokokchung, Wokha	Pieces of root used as poultice to cure swollen hands; effective in diarrhea and teeth cavities; flower extract used as pain killer
<i>Coelogyne punctulata</i> Lindley [Tem-129]	Epiphyte	Japfu range, Tuensang	Powder of dry pseudobulbs applied of burn injuries to relieve pain immediately and healing of wound
<i>Cymbidium aloifolium</i> (Linnaeus) Swartz [Tem-138]	Epiphyte	Tseminyu, Longkhum	Powdery seeds dried and used as haemostatic
<i>Dendrobium chrysanthum</i> Wallich ex Lindley [Tem-145]	Epiphyte	Wokha, Mokokchung	Powdery seeds dried and used as haemostatic
<i>Dendrobium chrysotoxum</i> Lindley [Tem-149]	Epiphyte	Helipong, Changki	Powdery seeds dried and used as haemostatic
<i>Dendrobium densiflorum</i> Lindley [Tem-151]	Epiphyte	Longkhum, Peren	Powdery seeds dried and used as haemostatic
<i>Dendrobium moschatum</i> (Buchanon-Hamilton) Swartz [Tem-153]	Epiphyte	Kohima, Kiphire	Powdery seeds dried and used as haemostatic
<i>Dendrobium nobile</i> Lindley [Tem-154]	Epiphyte	Peren, Phek	Powdery seeds and root-powder used to heal wounds; also cures nervous disorder
<i>Malaxis acuminata</i> D. Don [Tem-235]	Terrestrial	Jakhama, Pulebadze	Extract of pseudobulbs used as tonic and against tuberculosis
<i>Pholidota imbricata</i> Hooker [Tem-245]	Epiphyte	Pulebadze, Longkhum	Pseudobulbs made into paste plastered on sprains, body pain and rheumatism; the plant decoction used to cure skin rash

Name of plant [Exsiccatus]	Habit	Distribution	Utility
<i>Rhynchostylis retusa</i> (Linnaeus) Blume [Tem-260]	Epiphyte	Tseminyu, Zunheboto	Leaf juice used externally on skin as emollient
<i>Vanda coerulea</i> Griffith ex Lindley	Epiphyte	Mokokchung, Zunheboto	Decoction of fresh flowers taken as appetizer and tonic
<i>Vanda tessellata</i> (Roxburgh) Hooker ex Loddiges [Tem-278]	Epiphyte	Jaluki, Dimapur	Paste of roots and leaves applied on sprains, rheumatism and used as antidote for spider and snake bite; roots antibacterial; leaf paste applied externally on body to reduce high fever; root decoction used in cholera; plant ash with mustered oil used in bone fracture
<i>Vanda testaceae</i> (Lindley) Reichenbach f. [Tem-291]	Epiphyte	Lumami, Tseminyu	Powder of dry leaves and flowers used in rheumatism

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