

# Curcilio orchoides Gaertn.- A less known ethnomedicinal plant from Senapati district, Manipur, Northeast India

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**Abstract-** *Curcilio orchoides* Gaertn.(Hypoxidaceae), a threatened ethnomedicinal herb of tropical and subtropical regions in Asia is reported as a less known medicinal plant from Senapati district of Manipur state, Northeast India.

**Index Terms-** *Curcilio orchoides*, threatened, ethnomedicinal, Senapati.

## I. INTRODUCTION

*Curcilio orchoides* Gaertn. is a small geophilous perennial herb with long cylindrical rhizomes and lateral tuberous roots. The rhizome extract is extensively used in Ayurvedic and Chinese systems of traditional healthcare for a wide range of ailments as an aphrodisiac, a tonic to restore vigor, against jaundice, dysentery, diarrhea, leucorrhoea and male sterility (Cao et al., 2008; Joy et al., 2004). The reported active compounds in rhizome extracts are alkaloids, glycosides, terpenoides, steroids, saponins, phenolic compounds, tannins and flavanoides (Asif, M. 2012). These phytochemicals show effective in microbial infections such as post operative wound infection, toxic syndrome, food poisoning caused by *Staphylococcus aureus* and also established the medicinal reports of the steam distilled extract as an antiseptic for the prevention and treatment of bacterial infections (Nagesh & Shanthamma, 2009). The medicinal report of this plant by local people of Manipur is in asthma, bronchitis, diarrhea, gonorrhoea, jaundice, pile and skin diseases (Sinha, 1996). Due to wide range uses of this plant in various ailments lead to overpopulation and wild population are reported to be declining rapidly and the plant has been assigned to threatened vulnerable category (Gupta & Chaddha, 1995).

## II. METHODOLOGY

The study site, Senapati district (23°47' and 25°41' N; 93°61' and 94°48' E) is one of hill districts of Manipur. It covers an area of 3271 sq. km and has six reserve forests inhabited by two dominant hill tribal communities, the Nagas and the Kukis along with other ethnic tribal groups. The altitude ranges from 880-2365m above mSL. An extensive survey of vascular plants was carried out from October 2012 to March 2015 in the reserve forests and various localities of the district. During the survey a good number of medicinal and taxonomically important plants were collected. The collected specimens were identified with the help of available literatures and regional Floras. Among the

identified medicinal plants, *Curcilio orchoides* Gaertn. was found to be one of the less known ethnomedicinal plant used by the inhabitants. The prepared herbarium specimen has been deposited in the Herbarium of Ethnobotany & Medicinal Plants Conservation Laboratory, Department of Ecology & Environmental Science, Assam University, Silchar.

## III. ENUMERATION OF TAXA

*Curcilio orchoides* Gaertn. (Hypoxidaceae).

*Curcilio orchoides* Gaertn. Fruct. i. 63, t.13; Baker in jour. Linn. Soc. xvii. 124; Roxb. Cor. Pl. i. 14, t.13; Fl. Ind. II.144; Thwaites Enum. 324; Grah. Cat, Bomb. pl. 215; Bot. Maq. t. 1076; Wall. cat. 5158; Miquel Fl. Ind. Bot. III. 585. C. *malabarica*, Wight Ic.t.2043; Hook Fl. Br. Ind. VI. 279.1892.

Small, perennial herb; Rhizome cylindrical, long, 5-12cm; Leaves(5-18x0.8-1.6cm), narrowly linear to lanceolate, acute, plicate to flat, 3-4 leaves crowded on the short stem with sheathing leaf base; Petiole short often absent; Leaves and aboveground parts senesce annually; Inflorescence spike, almost at ground level; Flowers yellow, first 1-2 flowers bisexual, remainders male; Bisexual flowers 1.2cm across, sessile, regular; Perianth 6 lobed, yellow(0.6-1x0.2- 0.3cm), lower tepals orange yellowish and hairy sparsely; Stamens 6, filaments 2 mm, filiform, anthers 2 mm; ovary 3 celled, oblong 4mm, style 2mm, stigma 3, lobes elongate; Ovules numerous per cell; Fruit fleshy hidden in the leaf bases (1.6-2.1 x 0.6-0.8cm); seeds 4-8, globose, 1-2mm, black, beaked, deeply grooved in wavy lines.

Habitat: grassy slopes and forest under stories.

Flowering and Fruiting: June-October.

Distribution: India ( subtropical Himalayas from Kumaon eastwards ascending to 1800m, Khasi hills, Assam, West Bengal, Western Ghats, Manipur-Kangchup hill); Australia, Japan, Srilanka, Malaysia.

Specimens examined: Kangchup hill; N 24°52.355', E 093°48.474'; 890m; 20. 09. 2013 ; Th. Sunita 0570; Plate 1. (Fig.1-7).

## IV. RESULTS AND DISCUSSION

Extensive use of the rhizome and rootstocks of *Curcilio orchoides* Gaertn. in ethnomedicine and traditional practices, a number of phytochemical and pharmacological investigations have been undertaken in different laboratories of India and other countries. However the inhabitants of Senapati district unnoticed

the medicinal values of this plant though they acknowledged a number of other medicinal plants to cure various ailments. It is needed to give awareness to the ethnic people of the district about the medicinal properties of this plant and special measures should be taken for the conservation of this plant *in-situ* as well as *ex-situ* not to extinct before its medicinal values come to light to this region.

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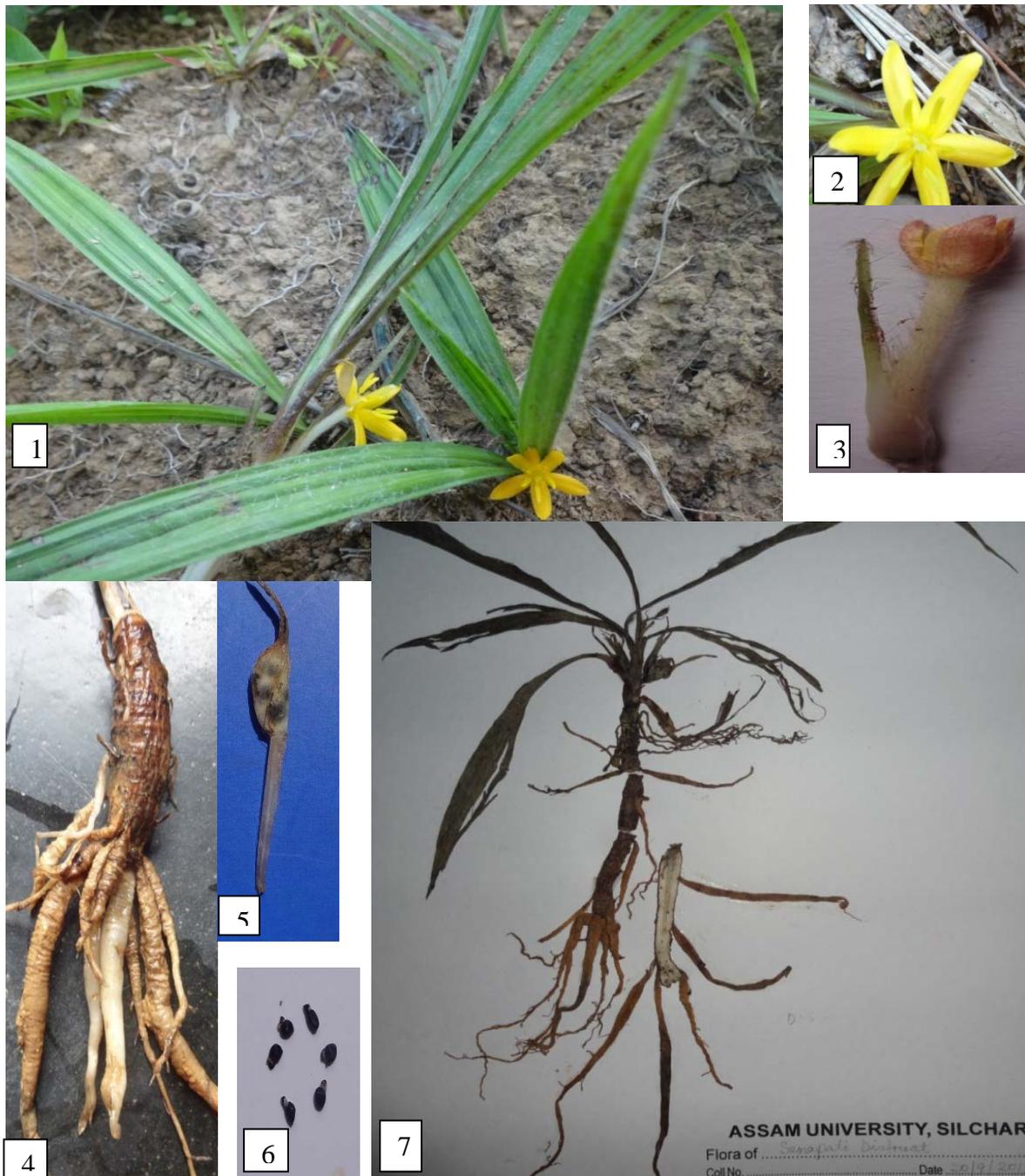


Plate 1. *Curcilio orchoides* Gaertn. ( Fig. 1-7): Fig. 1. Habit; Fig. 2. Flower; Fig. 3. Mature Flower with hidden fruit at the base; Fig. 4. Rhizome and rootstock; Fig. 5. Fruit; Fig. 6. Seed; Fig. 7: Herbarium specimen.