

## Research Article

# Morphological and Systematic studies on *Kedrostis foetidissima* (Jacq.) Cogn

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## ABSTRACT

### Keywords

*Kedrostis foetidissima*;  
anti -  
proliferative  
effects;

The traditional plants have been a great source of medicine in developing countries, such as African countries and Asian countries like India. But in the 20<sup>th</sup> century, the scientists in both developed and developing countries have been growing interest in medicinal plants Accordingly, the study is aimed to investigate possible anti-proliferative effects of *Kedrostis foetidissima* which is very effective in the treatment of asthma, chest pain and urinary track infection, diarrhea, HIV, Small pox and skin disease with this back ground, he present study is carried out to analyse morphological and Taxonomical traits.

## Introduction

Medicinal plants, which form the backbone of traditional medicine, in the last few decades have been the subject for very intense pharmacological studies, this has been brought about by the acknowledgement of the value of medicinal plants as potential sources of new compounds of therapeutic value and as sources of lead compounds in drug development.

In developing countries, it is estimated that about 80% of the population really depends on traditional medicine for their primary healthcare. So there arises a need to study and analyse morphological and Taxonomical traits of the medicinal plants.

*Kedrostis foetidissima* (Jacq.) Cogn. commonly known as “Appakovai” in Tamil is a medicinal plant found to be growing around the fence and have a very unpleasant smell but cattle feed on it ravenously. It is very effective in the treatment of asthma, chest pain and urinary tract infections, diarrhoea, small pox, skin diseases and snake bite. The leaf extracts were used as anti-fouling agents for the treatment of bloat in cattle. The leaf juice was used for the treatment of cold in children and used as immune modulator. With this background information the present study is aimed to identify the variations used as tool for systematic study of *K. foetidissima* this analysis were used in various applications.

## Morphology.

Each and every living organism has a definite form .Study of the external structure or morphology helps us to identify and distinguish living organisms. Knowledge of morphology of plant is also helpful in the study of various other fields such as genetics, plant breeding, genetic engineering, horticulture, crop protection and others. Wide range of flowering plants are identified, described and classified based on their morphology.

## Taxonomy

**Synonyms** *Trichosanthes foetidissima* (Jacq).  
cong=1789  
*Bryonia rostrata*, (Rottl) = 1803  
*Rhyhocapa foetida* C.B. Clarke = 1879  
*Kedrostis rostrata* (Rohl) = 1881  
*Kedrostis foetidissima* (Jacq) Cong=1881

## Botanical name

***Kedrostis foetidissima*(Jacq.) Cogn**

## Classification : Benthem & Hooker

**Class** : **Dicotyledons**  
**Subclass** : **Polypetalae**  
**Series** : **Calyciflorae**  
**Order** : **Passiflorales**  
**Family** : **Cucurbitaceae**  
**Genus** : **kedrostis**  
**Species** : **Foetidissima**

## Species of Kedrostis

*Kedrostis africana*  
(L.) Cogn.

*Kedrostis bennettii* (Miq.) W.J. de Wilde & Duyfjes

*Kedrostis capensis* A. Meeuse

*Kedrostis foetidissima* (Jacq.) Cogn.

*Kedrostis hirtella* Cogn.

*Kedrostis leloja* (Forssk. ex J.F Gmel.) C.Jeffrey

*Kedrostis Crassirostrata*

*Kedrostis Linpopoensis* .

*Kedrostis nana*

*Kedrostis gijef*

## ***Kedrostis foetidissima*.**

Tamil = Appakovai

Telugu = Kukumadumda / Nagadonda

Kannada = Kukumadumdarnara Bombay = Nurakvels

## **Ecology and Distribution**

World wide in distribution. It is Rich in the regions of south Africa and asia.

## **In India : The *Kedrostis foetidissima* is**

Distributed in the warm and dry areas of Gujarat, Punjab, Uttarpradesh, Maharastra & Andhrapradesh and it is also found in the Malabar, Deccan and Carnatic regions of India.

## **Key**

*Kedrostis foetidissima* (Jacq) con. in DC. Monag. phan. 3:634:1881; FINI : 172. *Trichosanthes foetidissima* Jacq.call.bot 2;341,, 1789.*kedrostis rostrata* (Rottl) cogn.in DC. manog.phan III 3:636 1881; FPM 381; Mayur - 133; chakra in RBSI 17:169:1959-FFI 11:64 1982. *Bryonia rostrata* Rottl.in Ges. Naturf. freunde neue schriften ser. 4.213.1803. *Rhyhocapa foetida* C.B. Clarke in Hook. Fl.Brit. Ind II 1879, 627 (Partimm non schrad). plate 4674 cumder *Rhynchocho camp foetida*).

## Conservation

*Kedrostis foetidissima* is a least concerned plant and is a threatened species it requires severe attention for conservation.

## Cucurbitaceae

The cucurbitaceae is essentially a tropical family containing 110 genera and 640 species. In india the family is represented by 37 genera and about 97 species several of which are cultivated throughout india.

### *Kedrostis foetidissima* (Jacq.) Cogn.

#### Family - Cucurbitaceae

Scandent , Monoceious, Stem slender, Branched, angled, Sparsely hairy, Tendrils simple, Filiform, Glabrous.

**Root :** In *Kedrostis* root is perennial due to presence of Root Stocks.

**Stem** slender distance between node and inter node 8.5 10.2 cm long.

0.2 mm style glabrous, stylar disc small stigma 3 fid. Flower are flask shaped.

**Leaves** 5.8 cm long, 7.1 cm breadth and as broad as long membranous, orbicular in out line, bright green, hairy and more or less scab rid on both sides margins entire or distantly toothed, cordate at the base. Some time five angled are sublobate, the lobes sub acute, apiculate,

**petioles** 2.7-2.8 cm long, hairy.

**Male flower ;** peduncles filiform 2.9 cm long, 0.7 mm at the apex, pedicles capillary 0.7 mm long usually bracteolate at the base, male flower length 0.7 mm across, in racemes. Calyx tube compunlate calyx length 0.3 mm, rounded at the base teeth minute. Corolla pale yellow. Segment oblong lanceolate, acute, 0.6 mm long pubescent, stamens 3 inserted in the middle of calyx tube filaments free anthers sub orbicular

**Female Flower;** Peduncles 1.3 cm long, beaked, pubescent, ovary oblong 0.9 mm long, petals are 0.6 mm long, calyx

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**Figure.1** Seedling stage of *Kedrostis foetidissima*



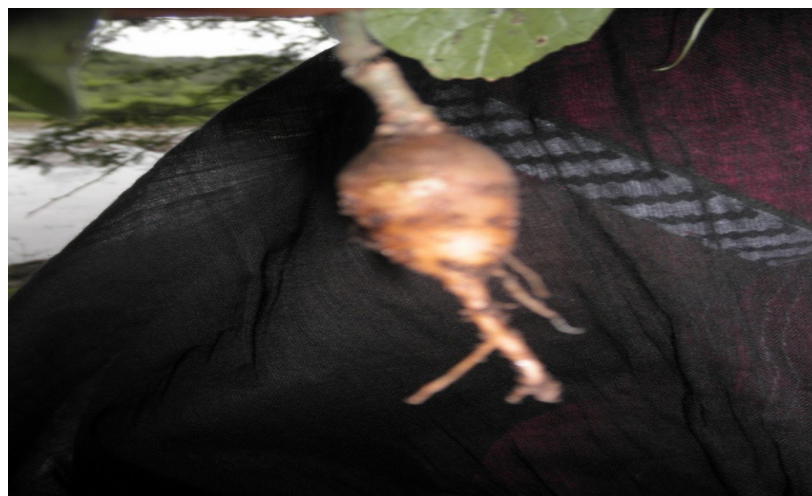
**Figure.2** Habit of *Kedrostis foetidissima*



**Figure.3** Young Tuber of *Kedrostis foetidissima*



**Figure.4** Matured tuber of *Kedrostis foetidissima*



**Figure.5** Stem of *Kedrostis foetidissima*



**Figure.6** Leaves of *Kedrostis foetidissima*



**Figure.7 (a)** Leaves *Kedrostis foetidissima*



**Figure.7 (b)** Leaf lamina of *Kedrostis foetidissima*



**Figure.8** Tendril of *Kedrostis foetidissima*



**Figure.9** Female flower of *Kedrostis foetidissima*



**Figure.10** Male flower of *Kedrostis foetidissima*



**Figure11** Fruits of *Kedrostis foetidissima*



**Figure.12** Seeds of *Kedrostis foetidissima*



**Figure.13** Parts of the *Kedrostis foetidissima*



2 mm style glabrous, stylar disc small stigma 3 fid. Flower are flask shaped.

**Fruit;** Fruit sub sessile, Deep red, about 4.9 cm long and beaks are 0.6 mm breadth, hair of fruit 0.2-0.1 mm ovoid, tapering into a long narrow beak, pubescent.

**Seed ;** Seeds 4 mm long, ovoid, with a narrow sharp wing brown .

## Materials and Methods

### Plant materials

Different parts of leaf, stem, tuber and fruit of *Kedrostis foetidissima* were collected during June 2013 to September 2013 . From Southern part of Chittoor, Andhra Pradesh, India. The collected plant materials were identified and their authenticity was confirmed by Mathew (1981) and Gambel (1986) respectively,



Medicinal Plants are called Back bone of world So without plants No life and No live, Plants play an important role in the Growth and development of the countries of the world. The Morphometric analysis of the plant *Kedrostis foetidissima* showed that the plant parts like stem, leaves, floral parts, fruit and seeds differ in measurement when compared with the original speices

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