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NOTES ON THREATENED DISTRIBUTION OF VULNERABLE PLANT SPECIES DICOMA TOMENTOSA OF FAMILY ASTERACEAE IN UTTAR PRADESH

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ABSTRACT

The present study of *Dicoma tomentosa* has been discussed with their habit, habitat, flowering & fruiting, taxonomic enumeration, nativity and physiographic position. The floristic account reveals that occasional threatened distribution of this species found few districts of Uttar Pradesh and dealing as becomes vulnerable species. The specimen deposition of this species which assist its future purpose.

Keywords:

Dicoma tomentosa, Asteraceae, vulnerable, Uttar Pradesh.

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INTRODUCTION

Dicoma tomentosa is shrubby and grows in diverse habitats including deserts. The genus *Dicoma* has 35 species (Abdel et al. 2021). It contains sesquiterpenes, sterols and triterpenes (Goffin et al. 2002, Becker et al. 2011). It is used by as tooth cleaner and used traditionally against in wounds and as febrifuge (Asolkar et al. 1956). The antiplasmodial activity of *Dicoma tomentosa* has been reported (Jansen et al. 2012, Kaur & Kaur 2017). It oil constituents has some antibacterial and antifungal activity such Bacteria are *Bacillus subtilis*, *Staphylococcus aureus*, *Pseudomonas aeroginesa*, *Escherichia coli* and Fungus is *Candida albicans*. (Abdel et al. 2021). It has primary metabolites activity such as carbohydrates, lipids, protein and phenols is good source of energy for human health and cell repair (Dhanias & Parihar 2021).

MATERIAL AND METHOD

Author collected *Dicoma tomentosa* from Lakhimpur districts of Uttar Pradesh. The whole plants are dried, cleaned & washed and treat chemically poisoned. The specimen attached in herbarium sheet for future purpose. The whole specimen is deposited in the Duthie herbarium, Department of Botany, University of Allahabad, Prayagraj, Uttar Pradesh. Review of literatures shows that overall studies were carried out provided based on published literatures as Fischer (1921), Bhandari (1978), Oliver (1979), Verma et al. (1993), Jain (1994), Khanna (2017), Sharma (2017), Singh & Narain (2018), Sinha & Shukla (2020).

RESULT AND DISCUSSION

Dicoma tomentosa Cass. in Bull. Soc. Philom. 47. 1818; Hook. f., Fl. Brit. India 3: 387. 1881; Duthie, Fl. of Upper Gangetic Plain. 1: 487. 1903; Fischer, Fl. of Anaimalai Hills 9: 104, 1921; Maheshwari, Fl. of Delhi; 202. 1963; Bhandari, Fl. of the Indian desert; 197: 1978; Oliver, Fl. of Tropical Africa 3: 443, 1979; Hajra, Rao, Singh & Uniyal, Fl. of India 13:171. 1995; Khanna, Geophytology 47(1): 86. 2017; Sinha & Shukla, Fl. of U.P. 2: 58. 2020; *D. lanuginosus* DC. in Wight, Contr. 26. 1834; Wight, Icon. t. 140. 1839. Enumeration: Shrubs, annual, erect, wooly pilose. Stem terete, ca 10-45 cm, branched, ca 2-5 mm thick, tomentose. Leaves sessile, alternate, linear-obovate, 2-5 x 0.3-0.5 cm, denticulate, apiculate, tomentose, estipulate. Heads solitary & terminal, ca 8-10 x 5 mm, subsessile, glabrous. Involucral bracts many seriate, narrowly pointed with spines, outer bracts linear lanceolate, ca 3-7 mm; inner ones ovate-lanceolate, ca 1-2 mm. Receptacle campanulate, ca 3 x 0.5 mm, smooth. Disc floret 4, tubular, white, ca 0.8-1 cm, 3 lobed. Pappus linear, setaceous, brown, ca 6 mm. Stamens 4, ca 3 mm, filament ca 2 mm, anther sagittate, ca 1 mm, barbellate. Ovary convex, 0.4-0.6 mm in diameter, style 2 mm, stigma 2 fid. Achene turbinate, densely silky, ca 3 x 1.5 mm, 8-ribbed.

It is commonly known as Vajradanti. Flowering & Fruiting: October-March



Herbarium specimen

Vulnerable: Common in sandy & dried regions

Nativity: Tropical Africa

Distribution: Tropical Africa, East Indies, Asia; Pakistan, Afghanistan, W. Peninsula India: M.P., Delhi, Tamil Nadu, Punjab, Maharashtra, Gujarat, Rajasthan, Uttar Pradesh.

Voucher no: Lakhimpur Kheri, PKS: 27111

CONCLUSION

During routine floristic survey in many districts of Uttar Pradesh, the author collected the specimens of *Dicoma tomentosa* in district Lakhimpur Kheri. After critical examination of herbarium study, review literatures, floral study and dissection, the specimen latter identified. This locality representing smaller area of *Dicoma tomentosa* which occasional occurrence deals as threatened species of Uttar Pradesh. This vulnerable species of *Dicoma tomentosa* is facing high risk of extinction for next future due to its becoming high risk of disappearing from wild in near future either because of its population is declining, climatic environments, encroachment of human activities such as urbanization, localization, population, deforestation, mining and thrashing soil texture and pollution in soil. So their adapting soil habitat in wild is not appropriate so resulting become vanished. These conditions have made unhealthy and difficult to survive *Dicoma tomentosa*. So loss or degradation of their habitat is major cause of their vulnerability and this species is not immediately endangered but is on a path towards becoming so.

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