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Wild Cucurbits of South-East Rajasthan: A **Preliminary Survey**

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ABSTRACT: The Cucurbitaceae or Gourd family has long played in important part for mankind. Mostly vegetables of this family are very popular and frequently utilized by human beings. The morphological nature of the tendrils, by which climbing is affected, is much disputed. Androecium variations in this family is also an interesting feature. Many climbers of family Cucurbitaceae found abundantly. Wild Cucurbits of South-east Rajasthan are considered in this communication.

KEYWORDS: Cucurbitaceae, Haroti plateau, Herbarium, Parietal, Pepo.

I. INTRODUCTION

South-Eastern part of Rajasthan, known as Haroti region, covers Kota, Bundi, Jhalawar and Baran districts. Haroti plateau is situated at the edge of the Malwa plateau at 23°45' to 25°53' N latitude and 75°9' to 77°26' E longitude in the south-eastern corner of Rajasthan. This is floristic rich area of Rajasthan. The climate of the area favours the growth of dry deciduous forests. The plateau has been found to support many cucurbits. These cucurbits are found on trees, shrubs, hedges, poles, wires, walls etc.

Most common wild Cucurbuits are Coccinia grandis (L.) Voigt., Cucumis callosus (Rottl.) Cogn., Cucumis maderaspatanus L., Cucumis melo var. momordica (Roxb) Duthie. & Fuller., Dactyliandra welwitschii Hook. f., Diplocyclos palmatus (L.) C. Jeffry., Momordica balsamina L., Momordica dioca Roxb. ex Willd., Trichosanthes bracteata (Lam.) Voigt., Trichosanthes cucumerina L. and Trichosanthes dioica Roxb.

The characteristics of the members of Cucurbitaceae family are - Annual or perennial habit, weak stemmed trailing or decumbent vines, usually climbing by means of tendrils, with plenty of juicy sap, leaves cordate or palmately lobed, surface hispid, flowers unisexual, monoecious or dioecious and fruits pepo. In present investigation wild cucurbit species have been enumerated.

II. RELATED WORKS

Literature survey of related taxonomical work done in India was done by various researchers (Sharma 1950, Jain and Rao 1977, Singh and Singh 1981, Shetty and Pandey 1983, Jain and Vairale 2007, Sujana and Sivaperuman 2008, Kumar 2012, Meena 2012, Balkrishna 2018 and Sharma 2021).

III. METHODOLOGY

The studies are based on field survey of the Haroti region. To record the cucurbit vegetation, area was visited during November 2019 to February 2022 in rainy and winter season. Herbarium specimen were collected and preserved in herbarium chamber, Government College Bundi by author. Fourteen plant species of Cucurbitaceae have been recorded in present observation.

IV. EXPERIMENTAL RESULTS

Fourteen wild cucurbit species were identified in present enumeration. The observed plant species are arranged alphabetically. The wild member of Cucurbitaceae of area have been enumerated below along with their botanical name, family and common name:

1. Blastania cerasiformis (Stocks.) A. Meeuse.

Family: Cucurbitaceae

Common name: Ankh phuttani bel

2. Blastania garcinii (Burm. f.) Cogn.

Family: Cucurbitaceae

3. Coccinia grandis (L.) Voigt.

Family: Cucurbitaceae

Common name: Kindoori, Kundru, Tindori

4. Cucumis callosus (Rottl.) Cogn.

Family: Cucurbitaceae

Common name: Kachari

5. Cucumis maderaspatanus L. (Syn. Melothria maderaspatana (L.) Cogn.)

Family: Cucurbitaceae

Common name: Ankh phuttani bel

6. Cucumis melo var. momordica (Roxb) Duthie. & Fuller.

Family: Cucurbitaceae

Common name: Phoot kachara, Bara kachra

7. Dactyliandra welwitschii Hook. f.

Family: Cucurbitaceae

Common name: Badi ankh phuttani bel

8. Diplocyclos palmatus (L.) C. Jeffry.

Family: Cucurbitaceae

Common name: Shivlingi, Ban kakra

9. Luffa echinata Roxb.

Family: Cucurbitaceae

Common name: Duttar toru

10. Momordica balsamina L.

Family: Cucurbitaceae

Common name: Kakoda, Bara karela

11. Momordica dioca Roxb. ex Willd.

Family: Cucurbitaceae

Common name: Jangli karela, Kankera

12. Trichosanthes bracteata (Lam.) Voigt.

Family: Cucurbitaceae

Common name: Lal indrayan

13. Trichosanthes cucumerina L. (Syn. Trichosanthes anguina L.)

Family: Cucurbitaceae

Common name: Chichonda, Jangli palval

14. Trichosanthes dioica Roxb.

Family: Cucurbitaceae

Common name: Palwal, Parval

Wild members of family Cucurbitaceae found abundantly in this area. The reproductive parts of the Cucurbitaceae family members having stamens sometimes 5, usually less, most commonly 3, two larger and one smaller, anthers free or connate; Carpels 3, ovary trilocular, inferior, stigma forked and parietal placentation.

V. CONCLUSION

Cucurbitaceae family shows many variations and interesting feature. Many plant species used to support climbing on hedges, small trees, walls and boundaries, such as *Coccinia grandis* (L.) Voigt., *Cocculus hirsutus* (L.) W. Theob., *Rhynchosia rothii* Benth. ex Aitch. etc. *Diplocyclos palmatus* (L.) C. Jeffry. is a perennial scrambling cucurbit climber called Shivlingi, due to its seeds which resembles a lingam. Fruits bursting like *balsamina* hence name given *Momordica balsamina* L. Fruits of *Momordica dioca* Roxb. ex Willd. are used in diabetes. Fruits are edible of *Cucumis callosus* (Rottl.) Cogn., *Cucumis melo* var. *momordica* (Roxb) Duthie. & Fuller., *Momordica balsamina* L. and *Momordica dioca* Roxb. ex Willd.

REFERENCES

- 1. Balkrishna, A. (2018). Flora of Morni Hills (Research & Possibilities): 1-581. Divya Yoga Mandir Trust.
- 2. Jain, A. K. and Vairale, M. G. (2007). Some threatened angiospermic taxa of Chambal eco-region. Phytotaxonomy. 07: 107-110.
- 3. Jain, S. K. and Rao, R. R. (1977). A hand book of field and herbarium methods. Today and Tomorrow's Printers and Publishers, New Delhi.
- 4. Kumar, S. (2012). Herbaceous flora of Jaunsar-Bawar (Uttarkhand), India: enumerations. Phytotaxonomy. 12: 33-56.
- 5. Meena, S. L. (2012). A checklist of the vascular plants of Banaskantha district, Gujarat, India Nelumbo 54: 39-91.
- 6. Sharma, O. P. (2021). *Striga* Lour, Root parasite angiosperm: A case study in Rajasthan state. Ad. Plant Sci. 34: (I II) 119-120.

- 7. Sharma, V.S. (1950). The flora of Ajmer a list of Trees, Shrubs and woody climbers. J. Bombay Nat. Hist. Soc. 55: 129-141.
- 8. Shetty, B.V. and Pandey, R.P. (1983). Flora of Tonk district. BSI, Howrah.
- 9. Singh, V. and Singh, P. (1981). Edible wild plants of Eastern Rajasthan. Journ. Econ. Tax. Bot. 2: 197-207.
- 10. Sujana, K. A. and Sivaperuman, C. (2008). Preliminary studies on flora of Kole wetlands, Thrishul, Kerala. Indian Forester. 23 (4): 1079-1086.

