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Brugmansia Suaveolens (Humb. & Bonpl. Ex Willd.) Bercht. & J. Presl: A New Record to The Flora of Rajasthan, India

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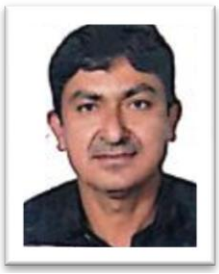

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Abstract

Brugmansia suaveolens (Humb. & Bonpl. ex Willd.) Bercht. & J. Presl, was first time collected from Mount Abu of district Sirohi, Rajasthan. The detailed information on taxonomic account of this species has been presented in this paper.

Keywords: *Brugmansia suaveolens*, New species, Rajasthan, India.

Introduction

The suaveolens is an important, one of large family of flowering plants which includes herbs, lianas, epiphytes, bushes, and trees, agricultural crops, therapeutic plants, spices, weeds, and ornamentals. It is also known as potato or nightshade family. Solanaceae has more than 98 genera and nearly 2700 species (Yadav *& al*, 2016), but recent estimate is that family has more than 94 genera and nearly 3000 species distributed throughout the world. In India family is represented by 15 genera and 90 species (Hickey *& al*., 1988). The *B. suaveolens* is native to the warmer plains of South-eastern Brazil (Schultes and Hofmann 1983).

Objective of the Study

To find out an available all species, in the study area

Review of Literature

Brugmansia is a genus of 7 species (Hay & al. 2012; Stinca A., 2020). It is native to coastal rainforest regions of Southeast Brazil but widely introduced in subtropical to temperate areas of the world and has naturalized in many areas. The flora of Rajasthan was worked out by several workers viz. (Sharma &Tiagi 1979; Shetty & Pandey 1983; Singh 1983; Bhandari 1978; Shetty & Singh 1993; Prasad et al. 1996; Sharma 2002, Singh et al. 2001, Tiagi & Aery 2007, Yadav & Meena 2008, 2009, Meena & Yadav 2010a, 2010b, Yadav & Meena 2011, Yadav et al. 2011, 2012; Meena 2010a, 2010b, 2010c, 2012a, 2012b, 2012c). Recently more work on the flora of Rajasthan has been carried out by various workers some of them are Meena & Keer, 2018, Singh & Meena, 2019. More recently Prasad et. al. 2021 contributed the floral work on the flora of Rajasthan. But this genus was not reported by earlier workers. In Rajasthan it was first time recorded in Mount Abu of District Sirohi. District Sirohi lies between latitude 24 degree 22' and 25 degree 16' N and between 72 degree 22' and 78 degree 18' E.

Hypothesis

Inventorisation of the flora of the Southern Rajasthan, including the taxonomical study of family solanaceae to find out the angiosperms species of the study area and its categorization. The study carried out to prepare the flora of family solanaceae with voucher specimen, and deposition of specimen in the herbarium of botany department, MLV Government College, Bhilwara.

Methodology

Intensive and extensive Botanical exploration and exhaustive studies of the whole southern Rajasthan for study the solanaceae flora during 2015-2020 in different seasons (winter, summer and rainy) to find out all the specimens in flowering and fruiting stage for easy identification with live material. The herbarium sheet is repaired in its standard format, then collected plant specimens will be identified with the help of different recognized floras (such as Flora of India, Flora of Madhya Pradesh and Flora of

Rajasthan), field data, consultation of authentic herbarium specimens lodged in Herbaria, Botanical Survey of India, Jodhpur. The nomenclature of taxa will be brought up to date using recent source as in accordance with the International Code of Nomenclature for algae, fungi, and plants (ICN).

Research Design

Intensive and extensive Botanical exploration and exhaustive studies of the whole southern Rajasthan to study the angiospermic flora, during 2015-2020 in different seasons so as to collect more and more plant specimens and information about wild flora of the area. The herbarium sheet is prepaired in its standard format, the collected plant specimens will be identified with the help of different recognized floras (such as Flora of India, Flora of Rajasthan vol. II), field data, consultation of authentic herbarium specimens lodged in Herbaria, Botanical Survey of India, Jodhpur.

Observations

Brugmansia suaveolens (Humb. & Bonpl. ex Willd.) Bercht. & J.Presl , Prir. Rostlin 45, 1820; G. Don, Gen Hist. 4: 475 475 1838; *Datura albidoflava* Lem., Jard. Fleur. 4(Misc.): 16, 1854; *D. arborea* Mart. Flora 24(2 Beibl.): 111, 1841; *D. gardneri* Hook, Bot. Mag. 72: t. 4252, 1846; *D. suaveolens* Humb. & Bonpl. ex Willd. *enum.* Pl. 227, 1809; *D. suaveolens* f. *albidoflava* (Lem.) Voss, Vilm. Blumengärtn. ed. 3 1: 726, 1894; *D. suaveolens* var. *macrocalyx* Sendtn Fl. Bras. 10: 161, 1846*. Pseudodatura suaveolens* Zijp, Natuurk Tijdschr. Ned.-Indie 80(1): 24, 1920; *Stramonium arboretum* Moench, Suppl. Meth. 173, 1802. (Plate 1A & B)

The plants found in Mount Abu of district Sirohi, Rajasthan show the following morphological traits.

Erect, much-brached shrubs, up to 4 tall, stem soft-wooded. Stems solid, terete, green when young, grayish on maturity, young stems densely covered by multicellular appressed trichomes. Leaves green, deciduous, alternate, petiolate (up to 12.2 cm long) and simple; Lamina lanceolate, 17.4 – 22.7 × 7.1 – 10.4 cm, entire, acute, base attenuate, veins reticulate with prominent mid-vein, herbaceous, sticky-hairy; petioles 3 – 4 cm long, terete, hairy, multicellular appressed trichomes. Flowers commonly solitary and axillary, pendulous, hypogynous; pedicel 2 – 2.5 cm long; calyx gamosepalous , 8-10 cm long, 5-lobed, acuteacuminate lobes, united up to the middle, lobes subulate, acute, green, deciduous; corolla trumpet-shaped or infundibuliform (campanulate), 25 – 30 cm long, 5-lobed, contortate-folded, slightly recurved acute-apiculate tips, generally white, pale pink of yellow in some. Stamens included in corolla, adnate, anthers basifixed and adherent. Ovary bilocular, style long (21-25 cm), stigma elongate. Fruit is capsule.

Flowering time

October-February

Ecological note

Extremely rare from Mt. Abu.

Distribution

Australia, Brazil, California, Central America, Florida, Greece, India, Kenya, Mexico, Portugal and Sri Lanka.

Indian distribution

Andhra Pradesh, Assam, Karnataka, Maharashtra, Nagaland, Tamilnadu, Tripura, Uttarakhand and West Bengal.

Specimens examined

K. L. Meena 12582 MLV GCB Herb.

Plate 1. ***Brugmansia suaveolens***: A. Habitat, B. Flowering twig

Conclusion

After addition this genus and species, to the flora of Rajasthan. The floral wealth has been increased up to 1946 species from all Rajasthan.

Suggestion

It is extremely rare species available only at Mt. Abu of Sirohi district required conservation priority.

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Authors' Contributions

Dharmendra Choudhary and Kanhaiya Lal Meena surveyed the study area collected

interesting plants specimens and observed the data from the field, prepare voucher specimen and deposited to the herbarium, department of botany, MLV Government College, Bhilwara.

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