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RESEARCH ARTICLE

A NOTE ON THE OCCURRENCE AND TAXONOMY OF ARABIAN CUCUMBER (*CUCUMIS DIPSACEUS* EHRENB. EX SPACH.) IN INDIA

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ABSTRACT

Cucumis dipsaceus Ehrenb. ex Spach. naturally grown in African countries and Egypt known as Arabian cucumber has been used in those areas as leafy vegetable. Recently, it has been reported from Karnataka and Tamil Nadu. The present communication confirms its occurrence in Kerala and also deals with taxonomy of the species for ready reckoner.

Key words:

Cucumis dipsaceus,
Climbers,
Taxonomy, Kerala.

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INTRODUCTION

The genus *Cucumis* L. is cosmopolitan in distribution and represented by about 52 species (Mabberley, 2008) and among that 13 species and 2 varieties are reported in India (Chakravarty, 1982; Saravalingam, 2010; Sutar et al., 2013 a, b; Nayar et al., 2014). During the botanical exploration at Attappadi valley, Palakkad district, Kerala the authors collected an interesting member of Cucurbitaceae in flowering and fruiting. On detailed examination of the specimens, it was identified as *Cucumis dipsaceus* Ehrenb. ex Spach., a species has its origin in Ethiopia and distributed to nearby countries in Africa such as Kenya, Somali, Tanzania, Uganda, Sudan and extended to Southern Egypt (Kirkbride, 1993). It is known by several common names like Arabian cucumber, hedgehog gourd, Pepino diablito, teasel gourd, wild gourd etc. Usually the leaves are consumed in its distributional areas as leafy vegetable (Verdcourt and Trump, 1969); its fruit juice is typically applied to prevent hair loss (Bussmann and Ashley, 2010).

In spite of the fact that the species is naturally being grown in wild, its name, *Cucumis dipsaceus* was erected based on the collections of Ehrenberg, G. C. during February 1825 from Saudi Arabia and subsequently validated by Spach in 1838.

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The holotype of this species is kept in Botanic Garden and Botanic Museum (B) at Berlin, which got destroyed. However, the isotypes are being maintained now at Swedish Museum of Natural History, Department of Botany (S-G-1785!), Sweden and Montpellier University Herbarium (MPU015480!) which now designated as "Lectotype". This species was recently reported in India from the states of Karnataka and Tamil Nadu (Sarvalingam et al., 2010; Sutar et al., 2013). The present paper reports the extended distribution of the species further southwards and forms a new addition to the flora of Kerala. Therefore, the present communication including a description, distribution and photographs are provided based on fresh collections.

Cucumis dipsaceus Ehrenb. ex Spach. Hist. Nat. Veg. 6:211. 1838; Sarvalingam et al., IJBT 37. 2010; Sutar et al., 2013.

Climbing herbs, Annual, scabrous. Stems weak, quadrangular, grooved, branched, hispid. Leaves ovate, shallowly trilobed, 8–14 x 5–14 cm, densely hairy on both surfaces, base cordate, apex acute to obtuse, margin serrate; petioles 1.5–4.5 cm long; tendril simple, pubescent, utmost tip glabrous. Inflorescence monoecious; male flowers axillary, 2–4 per axil; female flowers axillary, solitary. Male flowers 1–1.2 x 2–2.5 cm; pedicels ca. 4 mm long; calyx lobes linear, ca. 2 mm long, apex acute; corolla yellow; tube campanulate; lobes ca. 12 x 7 mm, ovate, apex obtuse, hispid outside, glabrous inside; stamens three; filament ca. 1 mm long; anther lobes ca. 2 mm long, straight, dorsifixed, ciliate. Female flowers 2–2.3 x 2–2.2



Fig. 1. *Cucumis dipsaceus* Ehrenb. ex Spach. A. Flowering twig; B. Fruit; C. Flower

cm; pedicels *ca.* 7 mm long, hispid; hypanthium 1–1.5 x 8–9 mm; turbinate, hispidulous; calyx lobes linear, *ca.* 2 mm long; corolla lobes obovate, 6–8 mm long, acute. Ovary *ca.* 1 x 0.9 cm, oblong, densely aculeate, 3-locular; style *ca.* 1 mm long; stigma 3-lobed, papillate. Fruit oblong, 5–7 x 3.5–4 cm, green, yellow on mature, many-seeded, densely aculeate (Fig. 1).

Flowering and Fruiting: October–February.

Distribution

Africa (Ethiopia, Kenya, Somali, Tanzania, Uganda, Sudan, Southern Egypt) and Asia: India (Karnataka, Tamil Nadu, Kerala)

Specimen examined

Kerala, Palakkad District, Attappadi, 11°5'12.5"N, 76°35'21"E, ± 750 m 25-12-2012, Geethakumary & Deepu Sivadas 75288 (TBGT).

Conclusion

The occurrence of this exotic species in India was reported during 2010 without mentioning the source of origin. Probably the seeds might have come to India through importing of food grains and that's why they got established in isolated areas and there is possibility that it may be spread in other areas but overlooked it by others. However, it is

heartening to note that its nutritional potential and medicinal properties are now being worked out (Rahul Chandran *et al.*, 2013; Nivedhini *et al.*, 2014) and certainly this species can be utilized in the long run by adding one more crops in our food basket.

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