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RESEARCH ARTICLE

SOLANUM MURICATUM AIT. (PEPINO FRUIT) - A NEW VEGETABLE PLANT SPECIES ADDITION TO THE FLORA OF WESTERN GHATS, INDIA

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ABSTRACT

During the collection of genus *Solanum* L. in India, we have collected some interesting specimens of *Solanum* in Munnar hill ranges of Western Ghat, India. After the critical identification the species was identified as *S.muricatum* Ait. It is vegetable fruit yielding plant native to South America commonly called as Pepino. The present record of this species is a new addition to the Flora of Western Ghats. A detailed description and Photographs are provided here for easy identification of a new vegetable fruit plant.

INTRODUCTION

The genus *Solanum* L. is a cosmopolitan genus represented 1250 species worldwide mostly distributed in tropical and subtropical regions of the world. In India the genus is represented by 48 Species (Reemakumari, 2004) While collecting the Indian *Solanum*, we have collected some interesting specimens of *Solanum* in some parts of Western Ghat area of Munnar, Idukki District, Kerala. The specimens were critically examined and with pertinent literature revealed that it is *S. muricatum* Ait. This *Solanum* species is native to South America commonly called as pepino. It is adomesticated vegetable not yet known from wild population but here it is collected from wild forest area of Western Ghats. It may be escaped from the cultivation but until now it was not known for cultivation crop in Western Ghats. This is the first report on the species available in Western Ghats, India.

Taxonomy

Solanum muricatum Aiton Hort. Kew. 1:250.1789.
S. hebeophorum Humb. & Bonpl. ex Dunal Solan. Syn.7. 1816.
(Fig. 1).

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Unarmed, erect herb to shrub, 1 m height, minutely pubescent throughout; branchlets angular, mature stems glabrous; Leaves uni to trifoliate, folia elliptic to oblong, middle leaflet larger than the laterals, upto 10×5 cm, entire, acute at apex, base unequal; petiole up to 5cm long. Inflorescence scorpioid cyme, axillary, ca 5 flowered; peduncles up to 3cm long, terete, minutely pubescent; pedicel up to 1.5 cm long, articulated at the base. Calyx 5-lobed, lobes 1×0.5 cm long, triangular at the base, tip linear, obtuse to acute, densely pubescent; corolla whitish purple or violet-purple, 5 lobed, 2-4 cm dia, rotate-pentagonal. Anthers 5, unequal in height, 4-6 mm long, yellow in colour, filament short, attached on the corolla mouth. Fruits pendent, white or pale green with purple variegation, flesh firm, up to 10 x 6 cm, ovoid to ellipsoid, juicy, aromatic; seeds many on centrally elevated placenta. Flowering & Fruiting: Throughout the year. Specimens examined: India, Kerala, Devikulam on the way to Munnar, Idukki District. 12.10.2013. S.Karuppusamy & V. Ravichandran 1410.

Distribution

Solanum muricatum Ait is native to Andean regions of Columbia, Peru, Chile from South America, even though it is not yet known from wild population from the native region itself. Now it is primarily grown for its edible vegetable in

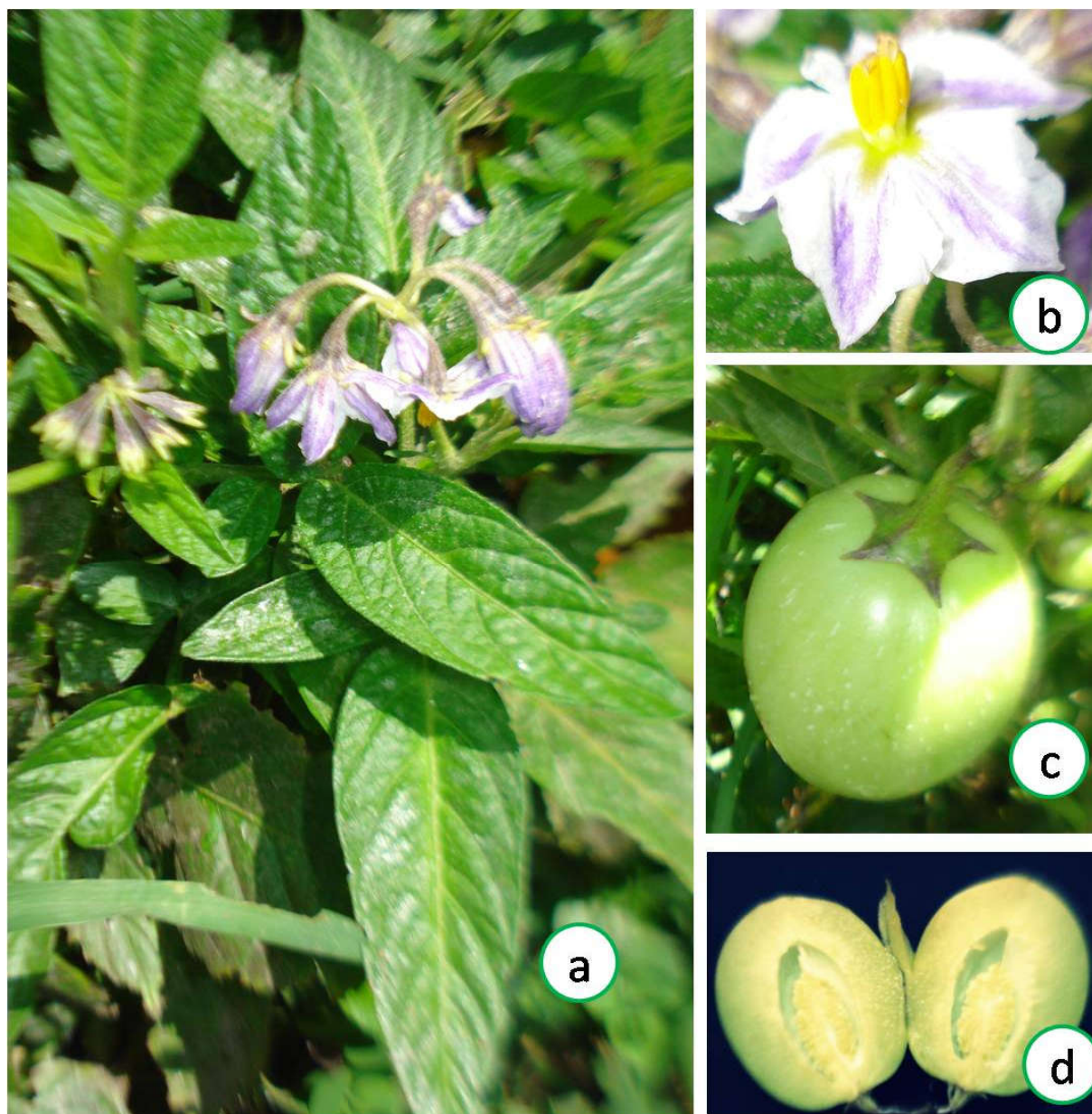


Fig. 1. *Solanum muricatum* Ait. a. Habit; b. Flower; c. Fruit-entire; d. Fruit-opened

temperate regions of the world. Cultivated and run wild in India (Munnar, Hill range, Western Ghats, Kerala).

DISCUSSION

Solanum muricatum Ait were found in road side of Devikulam on the way to Munnar. There is no cultivation of this crop in the area but it might be escaped from the gardens. The local people are using this fruit to treat blood pressure and diabetes. Locally the fruit is called 'pressure Kaai' in Tamil. This species is not representing in any Indian herbaria. The present collection has been deposited in The Madura College, Botany Department Herbarium, Madurai. *Solanum muricatum* Ait. is a domesticated crop plant of Andean origin vegetatively propagated by stem cuttings and esteemed for its edible fruit, a berry that is juicy, scented, mild sweet, and that can be highly variable in shape and colour. The pepino has been grown for thousands of years in the Andean region, and it was an important crop during the times of the Inca Empire.

However, until recently, concurrent with increasing interest in international markets, the pepino has been grown largely for local consumption in Central and South America (www.biodiversityinternational.org). In India, pepino has been introduced at the Horticultural Research Station, Ooty in 1993 (Mohan *et al.*, 2000). There after no records on the crop and cultivation details in Indian horticulture history and also botanical entity of the species unavailable. The present collection of the edible *Solanum* species is a new addition of the Flora of Western Ghats and horticulture crop plant for India.

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