A NEW VARIETY OF *SOLANUM AMERICANUM* MILL. (SOLANACEAE), FROM EASTERN GHATS, INDIA

P. MURUGAN, C. KALIDASS1 AND P.C. PANDA

*Taxonomy and Conservation Division, Regional Plant Resource Centre, Bhubaneswar-15, India*

**Keywords:** Solanum; New taxon; Eastern Ghats; India.

*Solanum* L., is economically and medicinally important genus and one of the largest genera of flowering plants with c. 1500 species distributed in all continents, except Antarctica (Vorontsova, *et al.*, 2013). In India, the genus is represented by 48 species (Reema Kumari, 2004), of which 13 species are reported from Odisha (Saxena and Brahmam, 1995). During revisionary studies and exploration of the genus *Solanum* L. of Eastern Ghats, the authors came across some interesting specimens from the districts of Kandhamal, Ganjam and Gajapati in Odisha state, India. These specimens closely resemble *Solanum americanum* but differ by its height, stem, number of flowers, ovary and style characters (Table 1). Therefore, it is described here as a new variety of *Solanum americanum* Mill. var. *odishensis* var. nov.

**Solanum americanum** Mill. var. *odishensis* Kalidass & P. Murugan, var. nov. (Fig. 1).

**Diagnosis:** *Solanum americanum* var. *odishensis* is closely allied to *Solanum americanum* Mill., but differs from it in having prickly angular stem, inflorescence 5-8 flowered, style erect, densely villous in middle and curved at apex.

**Type:** INDIA, Odisha: Kandhamal District, G. Udayagiri Forest range, 14 July 2015, 20°07'204"N, 084°22'187"E, ±658m, Kalidass & Murugan 18021 (*Holotype*: CAL!, *Isotypes*: MH!, RPRC!).

Erect annual herbs, 100-130 cm high. Stem 4-angular with prickles, branched, pubescent-glabrescent; branches ascending. Leaves simple, alternate or sub-opposite, ovate or ovate-lanceolate, 4-9×3-5 cm, cuneate or obtuse at base, margin entire to sinuate or sinuate-dentate, acute or acuminate at apex, pale beneath, glabrous or pubescent on both surfaces; lateral nerves 4-6 pairs; petioles 2-3 cm long, flat or terete. Inflorescence axillary or extra-axillary, umbellate or sub-umbellate cymes, 5-8 flowered. Flowers 3-5 mm long, creamy white; peduncle 2-3 cm long, slender, glabrous or pubescent; pedicels 8-10 mm long, slender, glabrous. Calyx 5-lobed, valvate, 1.5 mm in diameter, base united; calyx-lobes deltoid, each lobe less than 1 mm long, green, pubescent, margin ciliate, reflexed away from mature berries, persistent. Corolla valvate, 5-lobed, 2-3 mm in diameter, star-like, base united; lobes ovate or lanceolate 2.5 mm long, reflexed, margin ciliate. Stamens 5, epipetalous; anthers lanceolate, 1 mm long, yellow, dithecus, basifixed and dehisces apically; filament c. 0.5 mm long, glabrous. Ovary globose, c. 0.8 mm long, glabrous; style less than 1.5 mm long, filiform, densely villous in the middle, curved at apex; stigma capitate, green. Berries globose, 5-8 mm in diameter black or dull black when ripe, glossy. Seeds 10-30, ovate or orbicular, 1.0-1.5 mm long, brownish-white, compressed.

**Flowering and fruiting:** May - September.

1Corresponding author. Email: kalidassindia@gmail.com
**Etymology:** *Solanum americanum* var. *odishensis* is named after the state Odisha, one of plant diversity zones in Eastern Ghats, India.

**Distribution:** The new variety is distributed in the Odisha state of India as an Eastern Ghats element.

**Habitat:** *Solanum americanum* var. *odishensis* is found to grow in open scrub forest, usually near water courses and shady localities. It grows along with *Lantana camara* L., *Sida acuta* Burm. f., *Sesamum indicum* L., *Solanum torvum* Sw., *Albizia lebbeck* (L.) Benth., *Neolamarckia cadamba* (Roxb.) Bosser.

![Fig. 1. Solanum americanum Mill. var. odishensis, var. nov. A. Habit; B. Leaf; C. Stem; E. Inflorescence; F. Pistil; H. L.S. of flower bud; J. Fruiting twig; K. Fruit; L. Seeds; Solanum americanum Mill. D. Stem; G. Pistil; I. L.S. of flower bud.](image-url)
A NEW VARIETY OF SOLANUM AMERICANUM MILL.


Table 1. Comparison of Solanum americanum Mill. var. odishensis var. nov. and Solanum americanum Mill. var. americanum

<table>
<thead>
<tr>
<th>Character state</th>
<th>Solanum americanum Mill. var. odishensis var. nov.</th>
<th>Solanum americanum Mill. var. americanum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant height</td>
<td>≤100 cm</td>
<td>≤100 cm</td>
</tr>
<tr>
<td>Stem</td>
<td>Angular, prickly</td>
<td>Terete, non-prickly</td>
</tr>
<tr>
<td>Number of flowers</td>
<td>5-8 flowered</td>
<td>4-6 flowered</td>
</tr>
<tr>
<td>Ovary</td>
<td>Globose, less than 1mm long</td>
<td>Ovoid, more than 1mm long</td>
</tr>
<tr>
<td>Style</td>
<td>Less than 1.5 mm long, densely villous at middle</td>
<td>More than 1.5 mm long, densely glandular at middle</td>
</tr>
</tbody>
</table>

Acknowledgements

The authors are grateful to Shri. Shashi Paul, I.F.S., Chief Executive, Regional Plant Resource Centre, Bhubaneswar for their encouragement and facilities. Thanks are also due to Forest & Environment Department, Government of Odisha, Bhubaneswar for financial support to this project.

References


(Manuscript received on 25 January 2016; revised on 12 April 2016)