

***CAPSICUM SONITPURENSIS* (SOLANACEAE) - A NEW SPECIES FROM ASSAM, INDIA**

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Abstract

A new species *Capsicum sonitpurensis* (Solanaceae) is proposed from Sonitpur district of Assam. It resembles *Capsicum chinense* and *C. annum* but has many contrasting characters from each other. The description, photographs and IUCN conservation status of the species are provided.

Introduction

The family Solanaceae comprises of about 100 genera and 2,716 species (Hunziker, 2001; Olmstead and Bohs, 2007; Olmstead *et al.*, 1999) and is distributed worldwide except Antarctica. South America has the highest diversity in species (Yadav *et al.*, 2016). The genus *Capsicum* L. is an economically important genus comprising of about 37 species worldwide (Pozzobon *et al.*, 2006). It is also reported that the genus has numerous wild species (Hunziker, 2001). Hooker (1883) described three species from India, *viz.*, *C. frutescense* L., *C. minimum* Roxb. and *C. grossum* Willd. Kanjilal and Bor (1939) reported two species from Assam, *viz.* *C. minimum* Roxb. and *C. annum* L. While carrying out an inventory of the floristic diversity of the Sonitpur district of Assam, the authors came across this species of *Capsicum*. Critical comparative study of above three species of *Capsicum* has revealed that the species differs in many diagnostic taxonomic characters.

***Capsicum sonitpurensis* J. Sarma & G. Dutta, sp. nov.**

(Fig. 1).

Diagnosis: *Capsicum sonitpurensis* is closely related to *C. chinense* and *C. annum*, but can be distinguished from them by fruit shape and surface, androecium colour, petal colour, pungency, seeds per fruit.

Types: India, Sonitpur, Assam, 49 m alt., 21.11. 2015, J. Sarma & G. Dutta 394 A, B, C, D (*Holotype:* ASSAM; *Isotype:* TUH).

Perennial shrubs, up to 120 cm tall. Roots terete, c. 5 – 13 mm diam. Stems up to 15 cm long, branched, glabrate, slightly woody with age. Leaves opposite, ovate to lanceolate, apex acute-acuminate, base attenuate, margins entire, undulate; leaf lamina c. 6-12 × 3-6 cm. Venation reticulate, unicostate, surface glabrescent, base narrowed, margin entire. Petiole c. 2.0-4.5 cm. Flowers complete, white or off-white, c. 2.0-3.2 cm long, bracteate, pedicellate. Floral bracts small c. 0.2-0.4 cm, persistent; pedicels c. 2-3 cm long, greenish, jointed at the middle, nodding in flower, cylindric. Sepals 5, cup-shaped, undulate, c. 2-3 × 3 mm. Petals rotate, campanulate, salver or trumpet-shaped; lobes 5, usually equal; plicate or valvate in bud. Stamens 5, c. 3-4 mm long, epipetalous, alternating with the corolla lobes, sometimes didynamous and unequal, attached to the

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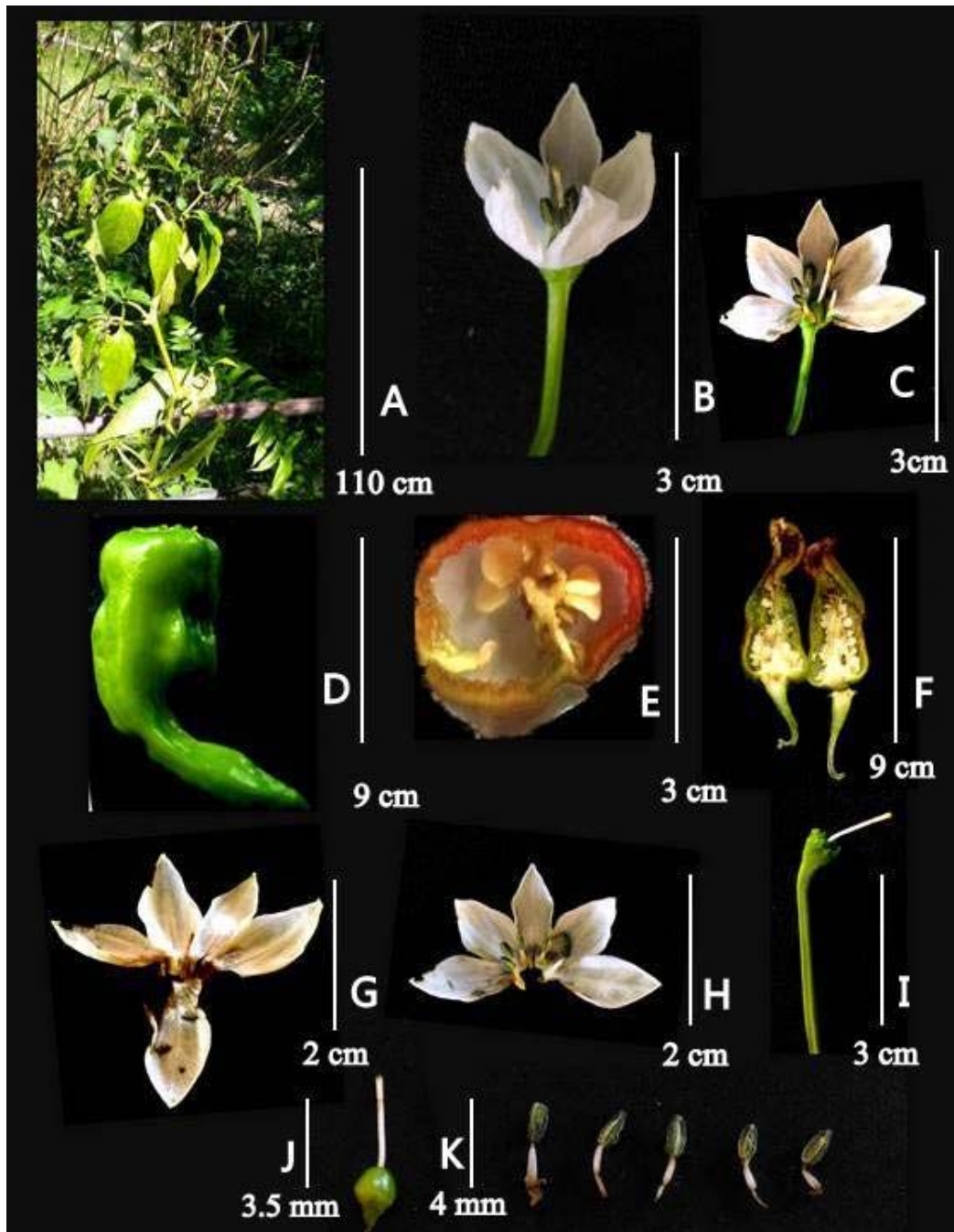


Fig. 1 A-K. *Capsicum sonitpurens* J. Sarma & G. Dutta, **sp. nov.** A. Habit; B. Solitary flower; C. Flower showing Androecium and Gynoecium; D. Fruit; E. TS of fruit; F. LS of fruit; G. Corolla; H. Corolla with Androecium; I. Gynoecium with Calyx and stalk; J. Gynoecium; K. Androecium;

base of the corolla tube or higher up. Carpels white, c. 3.0-3.5 mm long. Ovary superior, oblique, c. 2-4 locular; placentation axile. Fruit a many-seeded berry, c. 6-9 cm long, surface uneven, smooth, light green, reddish black at maturity. Seeds white, compressed, reniform to discoid, c. 220-240 per fruit.

Phenology: Flowering: May-August; Fruiting: July- November.

Distribution: Recorded only from Sonitpur district of Assam, India. The author has not recorded the same species in any other places of Assam as on date.

Habitat: Terrestrial, forests, (from forests now it is cultivated in different places of Sonitpur) 48-60 m alt.

Status: Only known from the type locality therefore, considered to be Data Deficient (DD), further survey will be conducted. At present, authors have not found no similar specimens from other parts of Assam. From type locality about 47 individuals were traced.

Etymology: The specific epithet *sonitpurensis* refers to Sonitpur District of State Assam from where the species was first collected.

The new species has been critically compared with the *C. chinense* and *C. annum* and the distinguishing characters are given in Table 1.

Table 1. Comparison of distinguishing taxonomic characters of *Capsicum sonitpurensis* with *Capsicum chinense* and *Capsicum annum*.

Characters	<i>Capsicum chinense</i>	<i>Capsicum sonitpurensis</i> sp. nov.	<i>Capsicum annum</i>
Pedicel	3.0- 4.5 cm	2-3 cm	4-6 cm
Fruit colour at maturity	Orange/Reddish	Greenish black	Red
Fruit shape	Oblong	Lanceolate	Conical
Fruit length	3.0- 4.6 cm	6- 9 cm	1-3 cm
Fruit surface	Curly /rough	Wavy /smooth	Uneven
Androecium colour	Whitish	Violet-White	White
Petal colour	Greenish yellow	Violet-white	Creamy white
Petal size	Length: 0.5-1.0 cm	Length: 1-2cm	Length: 0.5 – 1.0 cm
Seeds/fruit	30 - 48	100- 230	50-90

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