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Review Article

Stylosanthes hamata (L.) Taub. (Fabaceae): A new Addition to the flora of Uttar Pradesh, India

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Abstract

Stylosanthes hamata (L.) Taub. (Fabaceae): was collected during exploration of the floristic diversity of waste land near the village Nagal of Saharanpur district, Uttar Pradesh, India. Literature survey reveals that this element has not been reported so far from Uttar Pradesh. The present paper reports *S. hamata* as a new distributional record for the flora of Uttar Pradesh. Detailed descriptions and photos are provided to for easy identification

Keywords: *Fabaceae, Flora, New addition, Saharanpur, Stylosanthes, Uttar Pradesh.*

Introduction

The genus *Stylosanthes* Sw. (Fabaceae) have about 50 species which are distributed mainly in tropical parts of the world including America, Africa, India and Sri Lanka (Mannetje,1984; Gissi *et al*., 2023). The genus *Stylosanthes* is characterized by shrubby or suffruticose habit, prostrate and spreading with branched stem. Leaves are trifoliolate, without stipels, leaflets are lanceolate with obtuse to acute apex. Stipule is amplexicaul with two teeth. Fruits are loments with one or two fertile articles (Mohlenbrock, 1957). In India, the genus *Stylosanthes* is represented by only four species *viz.*, *S. fruticosa* (Retz.) Alston, *S. hamata* (L.) Taub., *S. guianensis* (Aubl.) Sw. and *S. humilis* Kunth (Anand and Khanna, 2018). In India *S. hamata* was first of all reported by Anand and Khanna (2018) from Betul, Madhya Pradesh, India. In the flora of Uttar Pradesh only one species *S. fruticosa* (Retz.) Alston has been reported so far (Tiwari and Ansari, 2012; Singh *et al*., 2016).

While exploring the floristic diversity of wastelands of Saharanpur district (Uttar Pradesh) in the month of November 2024, the authors observed an interesting population of plant of family Fabaceae in flowering and fruiting stage growing in waste land along the road side near village Nagal of Saharanpur district. After critical examination and matching of specimen with protologue and literature (Mohlenbrock, 1957; Anand and Khanna, 2018), it was identified as *S. hamata* (L.) Taub. Review of literature (Singh *et al*., 2016; Khanna, 2017), reveals that this element has not been reported so far from Uttar Pradesh. The photos of plant in flowering state were captured.

Taxonomic Treatment

S. hamata (L.) Taub. Verh. Bot. Brand. 32:22. 1890. *Hedysarum hamatum* L. Syst. Nat. 10:1170. 1759. Mohlenbrock in Ann. Miss. Bot. Gard. 44:4. 324. 1957.

Much branched herb. Stem up to 75 cm tall with white pubescence in one line along the length of stem. Leaves trifoliate, petiole ca 1.1 cm; leaflets lanceolate, 1.6 cm × 3 mm, glabrous on both surface, with up to 6 veins, mid vein prominent on lower side, middle leaflet 20 × 3 mm, exceeding both present on lateral side and with comparatively longer ca 3 mm long stalk, lateral leaflets without stalk; margins entire, apex acute. Stipule membranous, amplexicaul, covering the stem up to 7 mm; bifurcated above in the form of two teeth, teeth 5 mm long. Stipels absent. Flowers yellow, clustered in terminal and axillary spike. Bracts ciliate. Calyx 2-4 mm, ciliate. Corolla papilionaceous, standard about 4 mm, orange in inner midportion; wings ca 3.5 mm

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long; keel falcate. Stamens monoadelphous. Fruit lomentum, with two articulation, lower ca 2 mm and upper up to 4 × 2 mm with reticulate surface; beaked, beak ca 3 mm, uncinate. Seed 2 × 1 mm, oval, glabrous, shining, brown in color (Fig.1).

Flowering & fruiting: Sep-Nov.
Distribution: Native to South Mexico to Venezuela. India (Madhya Pradesh, Maharashtra, Saharanpur [present study]).

Specimen examined
India, Uttar Pradesh, Saharanpur district, Nagal, 24 Nov 2024.

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Figure-1 (A-C): *Stylosanthes hamata* (L.) Taub. (A& B) Twig with inflorescence and flower, (C) Seed.

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