



## ***Platostoma hispidum* (L.) A.J. Paton (Lamiaceae): A New Plant Record for Flora of Haryana State, from District Yamunanagar**

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### **Abstract**

The paper enlists an interesting and locally uncommon taxon *Platostoma hispidum* (L.) A.J.Paton, collected from Bilaspur, district Yamunanagar of Haryana state. During floristic survey of the region, under the ongoing research work of the first author, this interesting flowering plant species was reported. It was later identified as *Platostoma hispidum* (L.) A.J. Paton with the help of relevant literature. This collection forms a new record for the state flora.

**Keywords:** Floristic Surveys, Haryana, New Record, Lamiaceae, *Platostoma*.

### **Introduction**

With roughly 220 genera and nearly 4000 species worldwide, the family Lamiaceae (or mint family) is one of the largest and most distinctive flowering plant groups (Mabberley, 2017). This family has a nearly global range of distribution and is one of the world's most important sources of culinary, vegetable, and medicinal plants (Naghbi *et al.*, 2005). The genera with largest number of species in this family include *Salvia*, *Scutellaria*, *Plectranthus*, *Hyptis*, *Thymus*, among many others. Some of the common culinary herbs, such as basil, mint, rosemary, sage, oregano, which are aromatic in nature, belong to this family. Lavender, thyme, and perilla are some of the herbs used for their aromatic properties. Many members of the family are widely cultivated, not only for their aromatic properties, but also for the simplicity with which they can be grown (Rama, R. *et al.*, 2015). Phytochemicals found in plants of this family are a rich source of food and medicine, and their chemical components have a variety of biological roles with therapeutic advantages. They are known to have antibacterial, antifungal, antioxidant, and other biological actions. The most essential bioactive components in the family are

Alkaloids, flavonoids, tannins, and other phenolic chemicals. (Rai *et al.*, 2013). The *Platostoma* group of genera, belonging to tribe Ocimeae subtribe Ocimineae, of the Labiatae, contains 80 species found in tropical Africa, Asia and Madagascar. They are annual or perennial herbs, sometimes with woody, trunk-like bases and can be recognized from other members of subtribe Ocimineae by a combination of coloured bracts and basally swollen and often pubescent posterior stamina filaments (Suddee *et al.*, 2005)

### **Study Area and Finding**

In the course of study of floristic diversity of Yamunanagar district of Haryana state, the authors came across a wild herb, near Kathgarh village (Latitude 30.443°N Longitude 77.343°E) situated in Bilaspur block of the district. During one of the recent surveys, few individuals of this interesting plant were seen among the ground vegetation. The plant was photographed extensively to record most of the morphological aspects of the plant. After detailed study of the relevant literature, online resources and available herbarium records, the identity was determined as *Platostoma hispidum* (L.) A.J. Paton. It became

evident from perusal of literature that there are no previous records of the species in published flora for Haryana state (Jain *et al.*, 2000; Kumar, 2001; Balakrishna *et al.*, 2018). It is also worthwhile to mention that it is not reported in majority of state floras including neighboring states of Himachal Pradesh and Uttarakhand. Therefore, it is hereby being reported as the first authentic distribution record from the state of Haryana. As per GBIF database, there are 29 records of its collection from India, and latest one relates to Maharashtra, in 2019. According to the same database, most of the Indian collections have been made from Karnataka, but in 1993, a collection record exists from WII campus in Dehradun (Adhikari, 2019). As per BSI checklist (Sinha. *et al.*, 2019), the distribution of this species has been reported from Arunachal Pradesh, Himachal Pradesh, Jammu & Kashmir and Uttarakhand. The Checklist of Plants of India (BSI, 2014 onwards) points out that this species occurs throughout India except upper Himalayan regions. However, it is surprising to note that despite of supposedly wide distribution, this species has not been reported in most of the regional floras of India. As listed in Sharma & Kachroo, (1981), this species was collected from Jammu in 1970. From the state of Uttarakhand, the species has been listed as *Acrocephalus hispidus* (L.) Nicolson & Sivad. It has also been reported from Uttar Pradesh by Khanna, (2018), under the name *Platostoma hispidum* (L.) A.J. Paton and the collections have been made from Saharanpur region. Probably, this has been the reason for its extended distribution towards the area under current study, which is geographically connected to the Saharanpur district. The possibility cannot be ruled out that this species may be present in the entire lower Siwalik region, passing through Haryana, Uttar Pradesh and Himachal Pradesh. The further exploratory works in this region may

lead to its reporting in the areas for which it is hitherto unrecorded.

#### **Botanical Description**

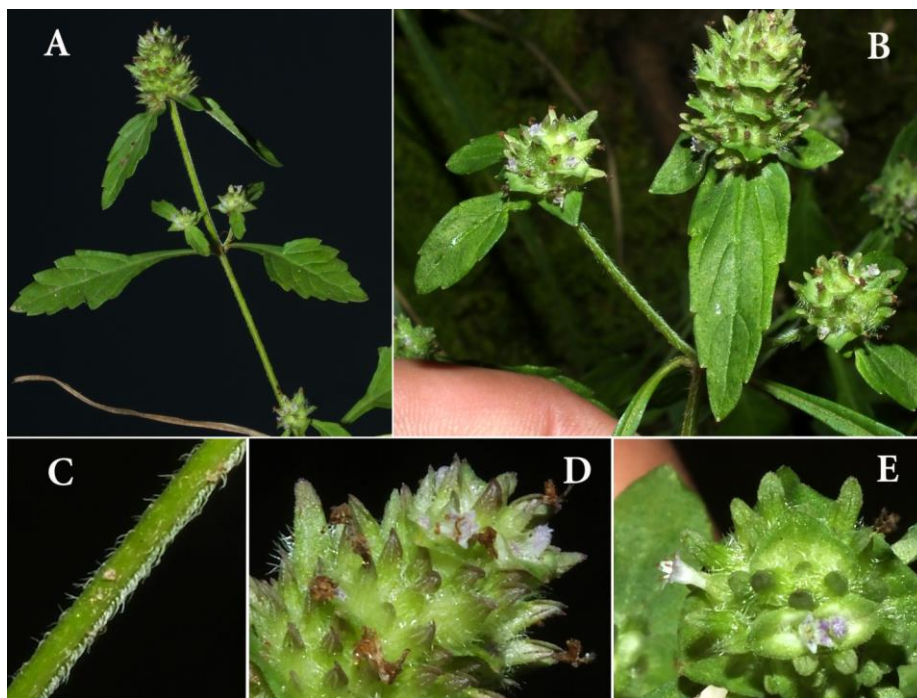
Herbs. Leaves small, opposite or whorled, petioled. Flowers small, in dense whorls of terminal or axillary, globose or ovoid heads, with imbricate bracts and a pair of floral leaves. Calyx bilipped, ovoid, later tubular and sub-erect in fruit, upper lip large entire, lower lip 4-lipped. Corolla small, obscurely two-lipped. Upper lip sub-equally 4-lobed, lower lip entire. Stamens-4, declinate, didynamous, anthers 1-celled, Disc small. Ovary 4-partite, Style slender, shortly bifid at apex. Nutlets smooth (Rao *et al.*, 2019).

#### **Distribution and Local Status**

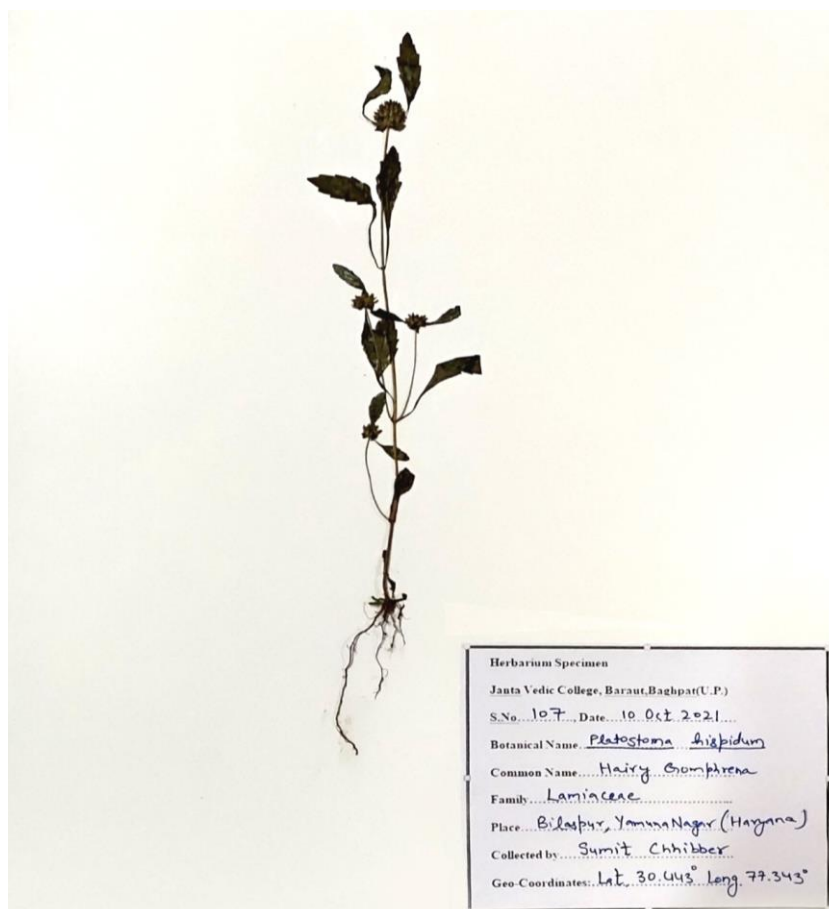
**Global:** India, Jawa, Laccadive Is., Laos, Lesser Sunda Is., Malaya, Maluku, Myanmar, Nepal, New Guinea, Philippines, Sulawesi, Sumatera, Thailand, Vietnam, Bangladesh, Borneo, Cambodia, China South-Central.

**India:** Assam, Andhra Pradesh, Karnataka, Kerala, Odisha, Maharashtra, Jammu, Uttar Pradesh, Uttarakhand, Eastern Himalaya, Western Himalaya, Haryana (being reported now).

**Specimen Collected:** Village Kathgarh, Block Bilaspur, District Yamunanagar, Haryana (Sumit Chhibber 107, 10.10.2021). The herbaceous species prefers to grow in the moist localities and was found to be fairly distributed in the study area, with around 5-8 patches of a good number of individuals and a few isolated patches with less number of individuals. It is recommended that the population of this species should be carefully explored in other regions of India so that a clear picture of its conservation requirements can be drawn. Although the species does not look to be a rare one, but this is surely an overseen one, due to its very small size and inconspicuous flowers.



**Figure 1:** *Platostoma hispidum* (L.) A.J. Paton; A-B: Leaves and Inflorescence; C: Hispid Stem; D-E: Inflorescence- Lateral and Top View showing Bracts and Emergence of Flowers



**Figure 2:** *Platostoma hispidum* (L.) A.J. Paton; Specimen Collected from the Study Area

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