

**AGERATUM HOUSTONIANUM MILL. (ASTERACEAE) - A NEW  
ANGIOSPERM RECORD FOR BANGLADESH**

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The genus *Ageratum* L., under the family Asteraceae, is represented by c. 40 species (Wu *et al.*, 2011), distributed throughout the tropics. Though it is considered as a widespread weed, some species are widely cultivated (i.e. *Ageratum houstonianum*, *A. conyzoides*). Only one species (*A. conyzoides*) under this genus is reported from Bangladesh by Prain (1903), Ahmed *et al.* (2008) and Uddin and Hassan (2018). Recently the authors, while exploring the flora of the Ramsagar National Park and the Singra National Park under Dinajpur district, collected few specimens of *Ageratum* and after a critical taxonomic investigation identified as *Ageratum houstonianum* Mill. The species *Ageratum houstonianum* Mill. is widespread in Central America, Asia, Africa, Caribbean and Mesoamerica. This species has never been reported from the present territory of Bangladesh by any authors (*viz.* Hooker 1879, Prain 1903, Ahmed *et al.* 2008, Rimi *et al.* 2013, Rahman *et al.* 2015, Rahman and Hassan 2017, Uddin, 2018; Rahman and Uddin 2018, Begum and Uddin 2018, Ali *et al.* 2020). Hence, it is being reported here as a new angiosperm record for Bangladesh. The specimens are deposited at Bangladesh National Herbarium (DACB). The detailed description of the species accompanied with photograph and illustration are given below.

***Ageratum houstonianum* Mill.**, Gard. Dict., ed. 8. 1768.

**(Fig. 1 & 2)**

**Asteraceae**

*Ageratum conyzoides* var. *houstonianum* (Mill.) T.R.Sahu, Feddes Repert., 93(1): 64. 1982.

*Ageratum conyzoides* var. *mexicanum* (Sims) DC., Prodr. 5: 108. 1836.

*Ageratum houstonianum* var. *angustatum* B.L.Rob., Contr. Gray Herb. 68: 6. 1923.

*Ageratum houstonianum* f. *luteum* B.L.Rob., Contr. Gray Herb. 68: 6. 1923.

*Ageratum houstonianum* f. *niveum* B.L.Rob., Contr. Gray Herb. 68: 6. 1923.

*Ageratum mexicanum* f. *caeruleum* Voss, Vilm. Blumengärtn. ed. 3, 2: 445. 1896.

*Ageratum mexicanum* var. *majus* Voss, Vilm. Blumengärtn. ed. 3, 2: 445. 1896.

*Ageratum mexicanum* var. *nanum* Voss, Vilm. Blumengärtn. ed. 3, 2: 445. 1896.

*Ageratum mexicanum* f. *wendlandii* Voss, Vilm. Blumengärtn. ed. 3, 2: 445. 1896.

*Ageratum wendlandii* Bailly, Suppl. Fl. Pleine Terre: 2. 1884.

*Carelia houstoniana* (Mill.) Kuntze, Revis. Gen. Pl. 1: 325. 1891.

*English names:* Blue Mink, Blue Weed, Floss Flower, Mexican Pain Brush, Pussy Foot.

Annual herbs, up to 70 cm tall. Stem erect, simple or branched from middle or lower part, purple to red, green or straw-colored, tomentose or thinly lanate. Leaves broadly ovate or triangular-ovate, middle leaves 2-6 × 1.5-3.5 cm, upper and axillary leaves smaller, basally 3-5 veined, base cordate or truncate, margin crenate-serrate, apex rounded or acute, both surfaces

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sparsely or densely white pubescent; petiole 0.7-3.0 cm long, usually spreading white long tomentose. Inflorescence corymbose, 2-4 cm long; peduncle densely pubescent or powdery pubescent. Capitula 5-15 or more, involucre campanulate, 6-7 mm diameter; phyllaries 2 or 3-seriate, narrowly lanceolate, 4-5 mm long, abaxially glandular pubescent, margin entire, apex long acuminate, corollas tubular, 2.5-3.5 mm long, limb purplish, lobes pubescent. Achenes black, 5-angled, 1.5-1.7 mm long; pappus of 5 short free scales, scales oblong-lanceolate, 2-3 mm long, apex aristate-acuminate, sometimes truncate, 0.5-1.5 mm long. *Chromosome number*:  $2n= 20$  (Probatova, 2006). *Flowering and fruiting period*: Throughout the year, mostly in winter.

*Ecology*: Grows in sandy soils, grasslands, fallow lands, roadsides, slopes in valleys.

*Distribution*: Australia, Africa, Belize, Bolivia, Caribbean, China, Chinese Taipei, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Hong Kong, India, Mexico, Myanmar, Nepal, Nicaragua, Panama, South Africa, Suriname, United State, Venezuela, Thailand and Tropical America (Tropicos 2020, GBIF 2022).

**Table 1. Difference between *Ageratum conyzoides* and *Ageratum houstonianum*.**

Characters	<i>Ageratum houstonianum</i>	<i>Ageratum conyzoides</i>
Leaves	Basally cordate or truncate.	Basally obtusely or broadly cuneate.
Phyllaries	Narrowly lanceolate, apex long acuminate, margin entire, stipitate glandular, with long viscid hairs.	Broad, oblong or lanceolate-oblong, acute, margins often ciliate, glabrous or with long, non-viscid hairs, eglandular.

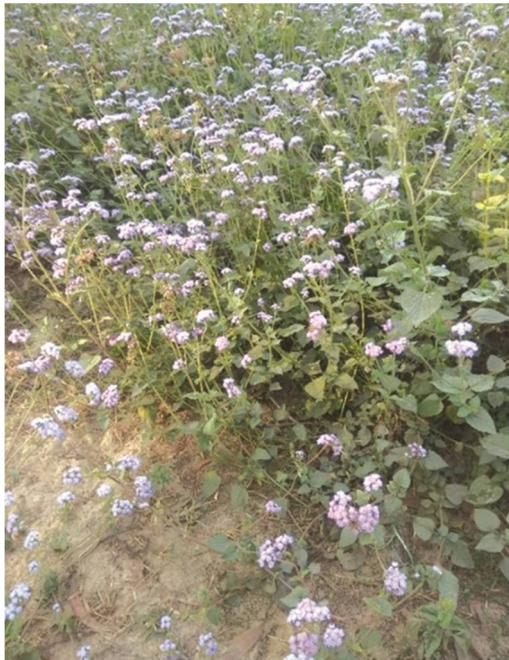


Fig. 1: Habit of *Ageratum houstonianum* Mill.



Fig. 2: *Ageratum houstonianum* Mill. a) Habit branch with inflorescence; b) Capitulum and c) Bisexual floret.

*Representative specimens:* **Dinajpur:** Singra National Park, 03.02.2019, *M.S. Rahman and M. Sultana.*, DMS-2603 (DACB 77748); Ramsagar National Park, 5.02.2019, *M. Sultana and N. Rahman.*, DMS-2638 (DACB 77747).

*Uses:* *Ageratum houstonianum* is used medicinally. People in Central America (Ecuador) use the plant as an antiphlogistic to relieve swelling and pain in the throat (Wu *et al.* 2011). The juice of the plant is used externally to treat cuts and wounds. The plant yields an insecticide (Tropical Plant Database, 2022). It contains toxic pyrrolizidine alkaloids and causing liver lesions to grazing animals (Wikipedia contributors 2021).

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### References

- Ali, M.M., Akter, N., Kabir, N.M., Hasan, M.M., Rahman, M.M. and Bari, M.S. 2020. The Biodiversity Status and Conservation Activities of Singra National Park (SNP) in the Link of Co-Management Strategy. *International Journal of Environment and Climate Change*. **10**(10): 136-146.
- Begum, M. and Uddin, S.N. 2018. *Ageratum*. In: Uddin and Hassan, M.A. (eds.). Vascular flora of Chittagong and the Chittagong Hill tracts. Vol. 3. Magnoliopsida: Part 2 (Hippocrateaceae - Asteraceae). *Bangladesh National Herbarium*, p. 866.
- GBIF Secretariat, 2022. GBIF Backbone Taxonomy. *Ageratum houstonianum* Mill. <https://doi.org/10.15468/39omei> Accessed via [https://www.gbif.org/occurrence/search?taxon\\_key=5401760](https://www.gbif.org/occurrence/search?taxon_key=5401760). 24 February 2022.
- Hooker, J.D. 1881. The Flora of British India, Vol. iii (Part vii). L. Reeve & Co. Ltd., The Oast House, Brook, Nr. Ashford, Kent. p. 243.
- Hossain, ABM E. 2008. *Ageratum* In: Ahmed, Z.U., Hassan, M.A., Begum, Z.N.T., Khondker, M., Kabir, S.M.H., Ahmed, M., Ahmed, A.T.A., Rahman, A.K.A. and Haque, E.U. (eds.). *Encyclopedia of Flora and Fauna of Bangladesh*, Vol. 6. Angiosperm: Dicotyledons (*Acanthaceae-Asteraceae*). *Asiat. Soc. Bangladesh, Dhaka*. pp. 265-266.
- [https://en.wikipedia.org/w/index.php?title=Ageratum\\_houstonianum&oldid=1061304532](https://en.wikipedia.org/w/index.php?title=Ageratum_houstonianum&oldid=1061304532)
- Prain, D. 1903 (Indian reprint 1963). *Bengal plants*, Vol. 1. Bishen Singh Mahendra Pal Sing, Dehra Dun, India. p. 433.
- Probatova. 2006. Chromosome numbers of plants of the Primorsky Territory, the Amur River basin and Magadan region. *Bot. Zhurn. (Moscow & Leningrad)* **91**(3): 491-509.
- Rahman, M.O. and Hassan, M.A. 2017. New angiosperm taxa for the flora of Bangladesh. *Bangladesh J. Plant Taxon.* **24**(2): 165-171.
- Rahman, M.S., Hossain, M.G., Khan, S.A. and Uddin, S.N. 2015. An annotated checklist of the vascular plants of Sundarban mangrove forest of Bangladesh. *Bangladesh Journal of Plant Taxonomy* **22**(1): 17-41.
- Rahman, N. and Uddin, S.N. 2018. Seventy-one New Additions to the Angiosperm Flora of Bangladesh. *Bull. Bangladesh National Herb.* **6**: 49-70.
- Rimi, R.H., Rahman, F. and Latif, M.B. 2013. Biodiversity Status and its Management at Ramsagar National Park at Dinajpur in Bangladesh. *J. Environ. Sci. & Natural Resources*, **6**(1): 21 -32.
- Tropical Plants Database, 2022. Ken Fern. [tropical.theferns.info](http://tropical.theferns.info). 2022-03-07. <[tropical.theferns.info/viewtropical.php?id=Ageratum+houstonianum](http://tropical.theferns.info/viewtropical.php?id=Ageratum+houstonianum)>
- Tropicos. 2020. [Tropicos.org](http://Tropicos.org). <[www.tropicos.org](http://www.tropicos.org)>. Missouri Botanical Garden, Saint Louis, Missouri, USA. Accessed on 28 January 2021
- Uddin, S.N. 2018. Discovery of seventy-three New Records of vascular plants for Bangladesh from Chittagong and the Chittagong Hill-tracts Area. *Bull. Bangladesh National Herb.* **6**: 1-47.

- Wikipedia contributors. (2021, December 20). *Ageratum houstonianum*. In *Wikipedia, The Free Encyclopedia*. Retrieved 10:33, March 7, 2022, from
- Wu, Z.Y., Raven, P.H. and Hong, D.Y. (Eds). 2011. *Flora of China*. Vol. 20-21 (Asteraceae). Science Press, Beijing and Missouri Botanical Garden Press, St. Louis. 879 pp.