

An overlooked naturalised plant from the highlands of Peninsular Malaysia: *Ageratum houstonianum* Miller (Asteraceae)

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There are two species of *Ageratum* (Asteraceae) in Peninsular Malaysia. The more common species is *Ageratum conyzoides* L., which was in cultivation in Europe as far back as the late 1600s and had spread by the early 20th century throughout the Malay Archipelago as a weed. Often confused with it is the less common *Ageratum houstonianum* Mill. (Fig. 1), which is native to Mexico, Central America, and the West Indies. Since the 1820s, *A. houstonianum* has been cultivated in Europe as an ornamental. It was introduced to Peninsular Malaysia at some unknown date and became naturalised. There are correctly named specimens from Peninsular Malaysia in the Singapore Botanic Gardens' Herbarium (SING), Herbarium, Lee Kong Chian Natural History Museum, National University of Singapore (SINU), and the Herbarium, Forest Research Institute of Malaysia (KEP). It is also recorded for Malaysia in the Global Biodiversity Information Facility (GBIF) database based on specimens at Naturalis Biodiversity Center (NL) Botany collection, Leiden.

The two species can be distinguished by the following characteristics:

Leaf blade with base cordate to truncate (Fig. 2A). Involucral bract narrowly lanceolate, conspicuously pilose (Fig. 2B). Capitulum with 75–100 florets *A. houstonianum*



Figure 1. Capitula showing open florets, young fruits, and floret buds of *Ageratum houstonianum*. Scale bar: 2 mm.

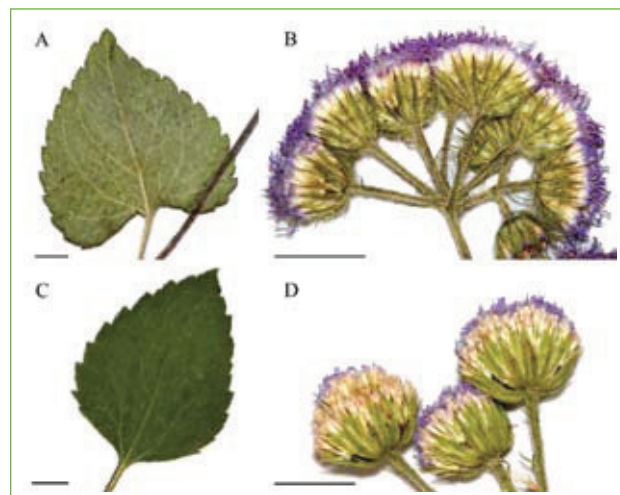


Figure 2. Herbarium specimens of *Ageratum houstonianum* (A, B) and *Ageratum conyzoides* (C, D): leaf (A, C) and capitula (B, D). Scale bars: 5 mm.

Leaf blade with base obtuse (Fig. 2C).

Involucral bract broadly ablong with apex abruptly narrowed, sparingly pilose to glabrous (Fig. 2D). Capitulum with 60–75 florets *A. conyzoides*

Based on the records of collections, it appears that this species is restricted to the cooler and moister highlands of Peninsular Malaysia in the hill stations established by the British. We postulate that *A. houstonianum* was introduced into cultivation at these hill stations as ornamental plants and escaped thereafter and naturalized. In other parts of Southeast Asia, this species has been recorded in Sumatra and Java (Koster, 1935; Johnson, 1971). In Sumatra, *A. houstonianum* is also found in relatively high altitudes of around 1,200 m, although it has since spread to lower altitudes (500 m) (Tjitrosoedirdjo, 2002). *A. houstonianum* has

also been recorded in northern Thailand, the Philippines and Papua New Guinea (The Global Biodiversity Information Facility, 2015).

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Peninsular Malaysia locality records

Cameron Highlands: *Z. Teruya* (HMB. 844); *M.A. Mohd. Hairul* (FRI 60859); *H.M. Burkill* 2624; *J. Sinclair* 9918; *N. Stein* CH 35; *J. Wyatt-Smith* KEP 63666; *A.N. Rao, H. Keng, P.N. Avadhani & students* K. 8071; *Ahmad Samsuri* SA 67; *A. Julius* FRI 57525; *Beentje, R. Kiew & J. Beentje* FRI 60859; *M.A. Mohd Hairul, R. Kiew & J. Beentje* FRI 60860.

Fraser's Hill: *R. Kiew* RL 5405.

Bukit Larut: *Keng, Lim, Wee, Tan, Sam & honours students* SL 2

Batu Gajah *F. S. P. Ng*, FRI 35777

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