

Mini data sheet on *Ageratina adenophora* (Asteraceae)

Ageratina adenophora (Asteraceae) was added to the EPPO A2 List in 2023. A full datasheet will be prepared, in the meantime you can view here the data which was previously available from the EPPO Alert List (added to the EPPO Alert List in 2022 - deleted in 2023).

Why

Ageratina adenophora (Asteraceae) is a perennial herb that is an invasive alien species in many regions of the world. In the EPPO region, it is present in isolated populations in Algeria, France, Italy, Portugal, and Spain. The EPPO Panel on Invasive Alien Plants recommended that an EPPO pest risk analysis is conducted for *A. adenophora* in 2023. The species is added to the Alert List to raise attention concerning the species and seek further information on its occurrence and behaviour in the EPPO region.

Geographical distribution

EPPO region: Algeria, France (including Corsica), Italy, Portugal, Spain (including Canary Islands).

Africa: Algeria, Kenya, Nigeria, South Africa, Uganda, Zimbabwe.

Asia: Bhutan, Brunei Darussalam, China (Guangxi, Guizhou, Yunnan), India (Himachal Pradesh), Indonesia, Laos, Lebanon, Myanmar, Nepal, Philippines, Taiwan, Thailand, Vietnam.

North America: USA (California, Hawaii), Mexico (Native).

Caribbean: Trinidad and Tobago.

Oceania: Australia, New Zealand.

Morphology

Stems purplish, numerous, erect, smooth, cylindrical; shortly branched towards the apex, 1-2 m long, occasionally longer; glandular, hairy at first but becoming woody with age. Leaves dark green; opposite, broadly trowel-shaped, 5-8 cm long, (2.5-)3-7.5 cm wide, with serrated edges, tapering towards the apex and narrowing abruptly at the base into a slender stalk 2-4 cm long; 3-nerved, glabrous or slightly pubescent, toothed along the apical margins. Petioles are brown. Flowers comprise 50 to 70 white, tubular florets about 3.5 mm long; grouped into heads 5-6 mm diameter within a row of green bracts and arranged in flat clusters up to 10 cm across at the end of the branches. Seeds are dark brown to black, slender, angular, 1.5-2 mm long with 5 to 10 fine white hairs approximately 4 mm long.

Biology and Ecology

Each plant can produce 100 000 seeds in a growing season. The species exhibits a fast growth rate that can facilitate the formation of a dense monoculture.

Habitats

A. adenophora can invade ruderal habitats (railways, roadsides), agricultural habitats, open woodland, forest margins. In the EPPO region it is found in frost free regions in the Mediterranean area and Atlantic islands though climate change could increase the area of

potential establishment. In France, it invades riparian habitats and in Italy it is recorded along riverbanks and wet rocky coastal areas.

Pathways for movement

The seeds of *A. adenophora* can be a contaminant of used machinery and equipment, soil or growing media attached to plants. Seeds can also be moved via livestock and seeds can become attached to clothing and recreational equipment. *A. adenophora* has been utilised as an ornamental species in the 19th century. Natural spread is via seed which can be dispersed by wind and water.

Impacts

Ageratina adenophora can have detrimental impacts on biodiversity and ecosystem services. Dense monocultures outcompete native plant species which can have negative impacts on higher trophic levels. *A. adenophora* can invade agricultural habitats with negative impacts on crop yield and pastureland. It is toxic to livestock.

Control

Mechanical and chemical control methods can be effective at controlling populations of the plant. Herbicides can be applied to the foliage when the plant is growing. Biological control has been applied throughout its invasive range utilising arthropod and fungal biological control agents with varying success.

Sources

- Andreu J, Vilá M, Hulme PE (2009) An assessment of stakeholder perceptions and management of noxious alien plants in Spain. *Environmental Management* **43**, 1244-1255.
- Del Guacchio E (2013) *Ageratina adenophora* (Asteraceae) new species to the Italian alien flora and observations on its environmental threats. *Hacquetia* **12**(2), 17-22.
- Muniappan R, Raman A, Reddy GVP (2009) *Ageratina adenophora* (Sprengel) King and Robinson (Asteraceae). In *Biological Control of Tropical Weeds using Arthropods*, ed. R. Muniappan, G. V. P. Reddy, and A. Raman. Published by Cambridge University Press. Cambridge University Press.