

**FIRST REPORT OF *CALLICARPA DICHOTOMA* AND *CALLICARPA JAPONICA*  
(LAMIACEAE) SPONTANEOUS AND POTENTIALLY INVASIVE  
IN NEW YORK AND NEW JERSEY**

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**ABSTRACT**

Spontaneous populations of *Callicarpa dichotoma* and *Callicarpa japonica* (Lamiaceae) are reported from New York and New Jersey for the first time. The populations are documented with herbarium specimens, photographs, and iNaturalist records. A dichotomous key to distinguish the native North American species and the commonly cultivated exotic species is provided.

At least three non-native species of *Callicarpa* are cultivated in the northeastern USA: the two reported here as adventive plus *Callicarpa bodinieri* H. Léveillé. The latter is rarely cultivated and can be distinguished by its large leaves with red abaxial leaf glands. It has not been found spontaneous in our region.

*Callicarpa dichotoma* (Lour.) K. Koch is a small shrub native to China, Vietnam, Korea, and Japan (Chen & Gilbert 1994). It is reported as naturalized in South Carolina (USDA, NRCS 2019), North Carolina (Radford & Ahles 1968), Kentucky (Campbell & Medley 2012), Tennessee (USDA, NRCS 2019), Virginia (Radford & Ahles 1968; Weakley 2015) and Delaware (USDA, NRCS 2019). According to Alan Weakley (2015), the species is beginning to spread more rapidly in the southeastern USA. The Delaware report of *Callicarpa dichotoma* can be confirmed with a specimen from Kent County (*Longbottom 15978*, NY). The Meehan Nursery in Pennsylvania was selling the species as early as 1879. It has been cultivated at the New York Botanical Garden since 1898.

**Voucher specimens of *Callicarpa dichotoma*. New York.** New York Co.: New York City, Manhattan, Central Park, Pond area, S of Gapstow Bridge, E side of Pond, between 61st and 62nd Street and between 5th and 6th Avenues, 40.766722, -73.973595, 26 Oct 2016, *Alvarez & Stout 201614* (NY);

Central Park, Dene Slope, 40.769302, -73.97117 ( $\pm 20$  m), 17 Aug 2018, *Gunderson 1* (NY). The Gapstow Bridge population consisted of one spontaneous individual and the Dene Slope population consisted of three spontaneous individuals.



Figure 1. *Callicarpa dichotoma* (A,B) and *Callicarpa japonica* (C,D), both spontaneous plants. A. Whole plant. B. Flowers with exserted stamens and small elliptic anthers. C. Whole plant. D. Flowers with exserted stamens and larger oblong anthers. (A,B. *Gunderson 1* (NY). C,D. *Young* <<https://www.inaturalist.org/observations/20972366>>).

*Callicarpa japonica* Thunb. is a shrub native to China, Japan and Korea (Chen & Gilbert 1994). Prior to this report it was only reported spontaneous in North Carolina (Weakley 2015; USDA, NRCS 2019). Spontaneous plants were observed at Tenafly Nature Center (40.923831, -73.941128,  $\pm 50$  m) in Bergen Co., New Jersey, on 23 June 2018 (M. Young, iNaturalist observation: <<https://www.inaturalist.org/observations/20972366>>). The New York Botanical Garden has grown the species at least since 1936.

**Voucher specimen of *Callicarpa japonica*. New York. Bronx Co.:** New York City, Bronx, grounds of the New York Botanical Garden, South Arboretum, W side of the Bronx River, 40.857798N, -73.877060 ( $\pm 25$  m, WGS 84), 18 May 2016, Atha, Schuler, and Wang 15434 (NY). The Bronx County population consisted of one spontaneous individual. The Bergen County population consisted of five mature individuals.

#### Key to cultivated and spontaneous *Callicarpa* in the Northeast and Mid-Atlantic

1. Leaves ovate, densely pubescent below; peduncles shorter than the petioles (inflorescences sessile) ..... ***Callicarpa americana***
1. Leaves elliptic,  $\pm$  glabrous below; peduncles longer than the petioles (inflorescences stalked).
  2. Shrubs to 1.5 m tall; branchlets somewhat compressed, glabrous or with a few stellate hairs; leaves petiolate, 7–13  $\times$  3.5–4 cm, the long caudate tip about 1/3 leaf length; anthers oblong, 1–2 mm long; cymes lax, each 3–4 cm across in fruit ..... ***Callicarpa japonica***
  2. Shrubs to 1.3 m tall; branchlets terete or quadrangular, stellate pubescent; leaves subsessile, 2–6 (-10)  $\times$  1–3(-4) cm, the short caudate tip about 1/4 leaf length; anthers elliptic, ca 0.5 mm long; cymes dense, each 1–2 cm across in fruit ..... ***Callicarpa dichotoma***

In addition to their displacement of native species, *Callicarpa* are congeners of a North American native and introgression of genetic material and erosion of genetic integrity of the native species should be a conservation concern. The sole *Callicarpa* species native to North America is *Callicarpa americana* L. This understory shrub usually occurs in moist or wet forests from Central Texas to Florida and north to southern Missouri, Tennessee, and Virginia (USDA, NRCS 2019).

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