

***EUPATORIUM CAPILLIFOLIUM* (ASTERACEAE) NEW TO NEW YORK**

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ABSTRACT

Eupatorium capillifolium (Asteraceae) is reported new to the flora of New York based on a 2015 collection from eastern Long Island, Suffolk County, and observations from 2013 to 2017.

Recent field work on eastern Long Island has revealed a population of *Eupatorium capillifolium* (Lam.) Small from Suffolk Co., New York. The species was not included in the flora of New York by Torrey (1843), House (1924), Mitchell (1986), Mitchell and Tucker (1997), Siripun and Schilling (2006), Weldy et al. (2016), or USDA PLANTS database (USDA, NRCS 2017). We report our voucher collection of *E. capillifolium*, documenting the first known persisting population of this species from the state.

***Eupatorium capillifolium* (Lam.) Small** ex Porter & Britton, Mem. Torrey Bot. Club 5: 311. 1894.

Voucher: **USA. New York.** Suffolk Co.: Southampton Township, 2.7 km (by air) SW of Riverhead, between Routes 24/25 and Route 27, Wildwood Lake Town Park, 40.895829°N, 72.677918°W (WGS84, ±25m), 2 m elev., 7 Oct 2015, *Lamont s.n.* (NY). Figure 1.

The population, located by Feder in 2013, consists of a discrete cluster of stems located along the upland border of a shallow cove on the northwest section of Wildwood Lake (Figure 2). The open, sandy habitat is dominated by herbs and shrubs including *Eupatorium hyssopifolium*, *Panicum virgatum*, *Euthamia caroliniana*, *Solidago odora*, *Erigeron canadensis* var. *canadensis*, *Artemisia vulgaris*, *Morella caroliniensis*, *Ilex glabra*, *Vaccinium corymbosum*, and *Clethra alnifolia*. The population has been monitored from 2013 to 2017 and a cursory search of adjacent areas revealed no additional individuals of *E. capillifolium* although suitable habitat was abundant. In 2017 Lamont counted 16 stems, perhaps representing a single clone. Stems and leaves first emerge in early to mid-May and flower buds begin to form in late September or early October with anthesis continuing into mid-November.

We consider the nativity status of *Eupatorium capillifolium* in New York to be “unknown” because the origin of the Long Island population cannot be determined as natural or a result of human assistance.

Eupatorium capillifolium is one of three wind-pollinated species [*E. compositifolium* Walt., *E. leptophyllum* DC.] in the genus from North America north of Mexico (Siripun & Schilling 2006). All three species occur on the Atlantic coastal plain and only *E. capillifolium* ranges north of North Carolina. Throughout its range on the Atlantic coastal plain *E. capillifolium* has been described as “aggressive and weedy” (Fernald 1950), occurring in open places including roadsides, clearings, old fields and pastures, disturbed woods, borders of woods, flatwoods, marshes, and wet disturbed sites



Figure 1. *Eupatorium capillifolium* from Suffolk Co., New York (Lamont s.n., NY).



Figure 2. Habitat of *Eupatorium capillifolium* bordering Wildwood Lake, Suffolk Co., New York (10 Nov 2016). Arrow points to discrete cluster of about a dozen stems of *E. capillifolium*.

(Fernald 1950; Radford et al. 1968; Cronquist 1980; Wunderlin 1998). Because this species occurs in disturbed and undisturbed habitats, determining its nativity can be difficult in newly colonized sites just beyond its historical range limit.

Historically, southern New Jersey (Cape May Co.) was considered the northern range limit of *Eupatorium capillifolium* (Cronquist 1980; Hough 1983) but during the past 30 years it has colonized the coastal plain north to Burlington Co. (G. Moore and T. Gordon, pers. comm.). The species has been reported from Connecticut and/or Massachusetts by Fernald (1950), Siripun and Schilling (2006), and USDA PLANTS database (USDA, NRCS 2017) although the species was not included in the flora of New England by Haines (2011).

In New York, *Eupatorium capillifolium* was reported in 1997 from Staten Island (Richmond Co.) based on a misidentified collection of *Artemisia campestris* subsp. *caudata* (8 Oct 1991, Meyer s.n., SIM!); Fernald (1950) described *E. capillifolium* as “superficially suggesting *Artemisia*.” In 2008, *E. capillifolium* was reported as unintentionally introduced by humans in Kings Co., but it did not persist (Tudor et al. 2015).

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