

**ABUNDANCE AND RANGE EXPANSIONS FOR *ECLIPTA PROSTRATA* (ASTERACEAE)
INTO THE NEW YORK METROPOLITAN AREA
WITH NEW STATE AND COUNTY RECORDS**

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ABSTRACT

We present records of *Eclipta prostrata* (Asteraceae) representing a new record for Connecticut, including three counties, as well as for three new counties in neighboring New York state. We also present evidence the plant has become significantly more abundant throughout its previously reported range, based upon collections made throughout 2016-2017.

Eclipta prostrata (L.) L. commonly known as false daisy or yerba de tago (Figs. 1, 2) is a native forb whose putative native range extends throughout most of the southern two-thirds of the USA, with sporadic records further north, extending into Ontario, Canada. The species has spread prolifically throughout the world, with new countries being added to its introduced range on a regular basis. Over the past year both Croatia (Jeričević & Jeričević 2017) and Serbia (Perič & Rilak 2017) have published new records of the species while Rao et al. (2007) listed *E. prostrata* as a weed of rice crops in twenty two separate countries. The species has many attributes making it a likely species to spread, including the production of over 17,000 seeds per plant (Holm 1977), its successful germination in a pH range of 4 to 11, and an ability to tolerate salt stress (Chauhan & Johnson 2008).

Within New York State, *Eclipta prostrata* is currently documented from eight of the southernmost counties; Orange and Rockland in “upstate” New York, Bronx, Richmond, Kings and New York Counties within New York City, and Nassau and Suffolk Counties on Long Island (USDA NRCS, 2018). Within the state of Connecticut, there are currently no records of the species found through the PLANTS database, or regional herbaria including the Bartlett Arboretum (BART) or Yale University Herbarium (YU), or in the New York Botanical Garden Herbarium (NYBG).

For New York we present new records for Queens County (*Morgan 0160002*, 40° 46' 18" N, 73° 45' 51" W), Westchester County (*Morgan 0170208*, 41° 06' 53" N, 73° 43' 35" W), and Ulster County (*Morgan 0170209*, 41° 58' 05" N, 74° 16' 43" W). Within Connecticut, we present records representing a new record for the state as well as three counties of record: Fairfield County (*Morgan 0170322*, 41° 07' 58" N, 73° 32' 57" W), New Haven County (*Morgan 0170341*, 41° 17' 04" N, 72° 51' 19" W), and Tolland County (*Morgan 0160111*, 41° 47' 37" N, 72° 26' 27" W).

For each record a voucher is deposited within the Biology Department of Farmingdale State College. Duplicates were sent to the Bartlett Arboretum Herbarium (BART). While only one voucher has been designated for each new county, it should be noted that for several of the counties in both New York and Connecticut, multiple locations were found of *Eclipta prostrata*. For many of

these, vouchers were also taken for the Farmingdale State College Herbarium. A summary of each new county in this study as well as surrounding counties and the total number of distinct populations documented in each is given in Table 1.

Table 1. Abundance and records for *Eclipta prostrata* in New York and Connecticut.

County name	Number of sites	New county record
Bronx Co., NY	5	no
Nassau Co., NY	17	no
Queens Co., NY	11	yes
Suffolk Co., NY	16	no
Ulster Co., NY	1	yes
Westchester Co., NY	2	yes
Fairfield, CT	6	yes
New Haven, CT	1	yes
Tolland, CT	1	yes

While hard data on the previous distribution of the species in counties prior to this work are unavailable, this work represents numerous collection sites throughout the area based upon only two years of limited sampling. Within Nassau County, the 17 sites may be a gross underestimation since the species was found at all but one of the sites visited to scout for the plant. Furthermore, at several sites, such as Crocheron Park in Queens County, the species not only represented a new county record but was abundant, with ramets numbering in the hundreds of individuals. Further west in Queens County, the margins of the campus lawns of Queens College (CUNY) consist of large patches of *Eclipta prostrata*, with plants often growing up to the edge of the sidewalks.



Figure 1. *Eclipta prostrata* in Queens Co., New York.



Figure 2. *Eclipta prostrata* along a sidewalk within lawn grasses in Queens Co., New York.

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