

Species Status Assessment

Common Name purple cudweed **Date Updated:** 2024-03-15
Scientific Name *Gamochaeta purpurea* **Updated By:** Gregory J. Edinger
Family Asteraceae

Species Synopsis (*a short paragraph which describes species taxonomy, distribution, recent trends, and habitat in New York*):

Purple cudweed (*Gamochaeta purpurea*), also called purple everlasting-cudweed, is a native annual or biennial forb/herb in the Aster Family (Asteraceae). There are two species of *Gamochaeta* in NY of which one is native to the state (Werier et al. 2023).

Purple cudweed ranges from Maine to British Columbia, south to Mexico and South America, more common southwards (Gleason and Cronquist 1991).

There is only one small extant population of purple cudweed in NY on Robins Island in the Peconic Bay. The current size of the population is uncertain, but presumably persisted for ten years between surveys (1984 to 1994) (NYNHP 2023). There are 27 historical locations of purple cudweed in NY based on specimens that need to be checked (Werier et al. 2023). All were collected before 1988 and 12 are from the 1800s (Werier et al. 2023). Most of these locations are around the New York City area and on Long Island. It is likely that many urban populations have been displaced by development. Elsewhere in NY purple cudweed specimens have been collected from the following counties: Albany, Cattaraugus, and Westchester (Werier et al. 2023).

Based on NY specimen label notes, purple cudweed is found on eroding sandy banks, in mowed lawns, in maritime interdunal swales, in old agricultural fields, habitats with sandy soil near coast; wet disturbed pine barrens; and cultivated fields (NYNHP 2023). An assessment of the threats to all purple cudweed populations in NY is needed.

I. Status

a. Current legal protected Status

i. Federal: **Candidate:**
ii. New York: Unlisted

b. Natural Heritage Program

i. Global: G5
ii. New York: S1 **Tracked by NYNHP?** On Active Tracking List

Other Ranks:

COSEWIC: Not listed in Canada

IUCN Red List: Not assessed by IUCN Red List

Status Discussion:

There is only one small extant population of purple cudweed in NY on Robins Island in the Peconic Bay. The current size of the population is uncertain, but presumably persisted for ten years between surveys (1984 to 1994) (NYNHP 2023). There are 27 historical locations of purple cudweed in NY based on specimens that need to be checked (Werier et al. 2023). All were collected before 1988 and 12 are from the 1800s (Werier et al. 2023). Most of these locations are around the New York City area and on Long Island. It is likely that many urban populations have been displaced by development. Elsewhere in NY purple cudweed specimens have been collected from the following counties: Albany, Cattaraugus, and Westchester (Werier et al. 2023).

II. Abundance and Distribution

Region	Present?	Abundance	Distribution	Time Frame	Listing status or S-Rank	SGCN?
North America	Yes	Unknown	Unknown	Unknown		
Northeastern US	Yes	Unknown	Unknown	Unknown		
New York	Yes	Unknown	Unknown	Unknown	E	
Connecticut	Yes	Unknown	Unknown	Unknown	SH	
Massachusetts	Yes	Unknown	Unknown	Unknown	S1	
New Jersey	Yes	Unknown	Unknown	Unknown	S4	
Pennsylvania	Yes	Unknown	Unknown	Unknown	SNR	
Vermont	No	-	-	-		
Ontario	Yes	Unknown	Unknown	Unknown	SX	
Quebec	No	-	-	-		

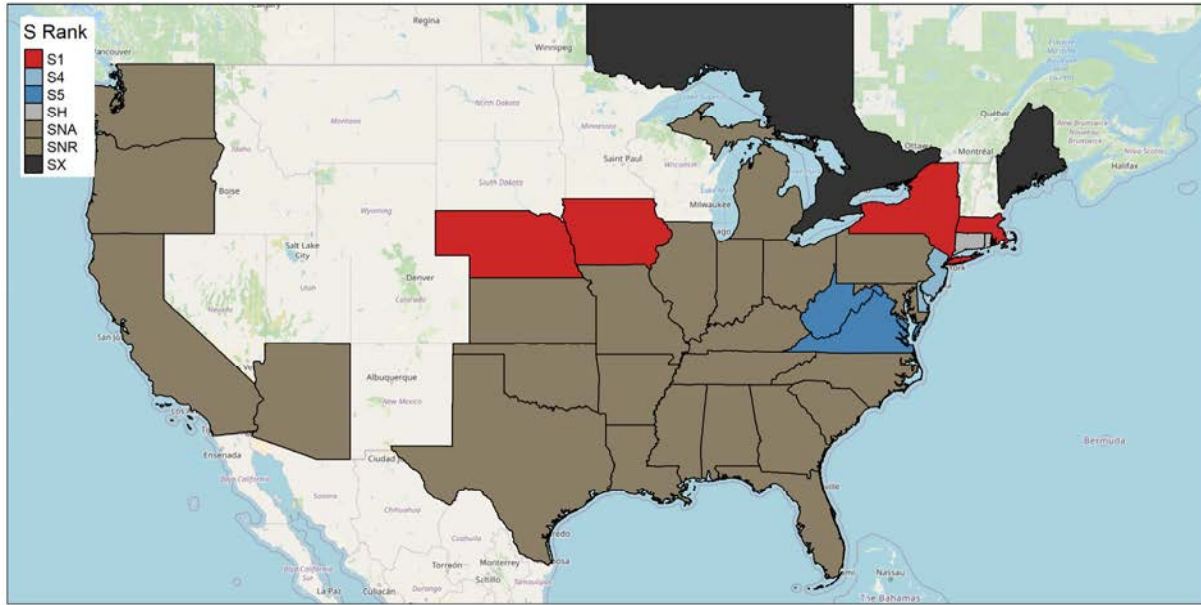


Figure 11: Gamochaeta purpurea North American distribution.

Percent of North American Range in NY	Classification of NY Range	Distance to core population, if not in NY
1-25%	Peripheral	Unknown

III. NY Rarity

Trends Discussion

There is only one small extant population of purple cudweed in NY on Robins Island in the Peconic Bay. The current size of the population is uncertain, but presumably persisted for ten years between surveys (1984 to 1994) (NYNHP 2023). Otherwise, there are not enough extant occurrences in NY to assess the long- and short-term trends.

Details of historic and current occurrence

There are 27 historical locations of purple cudweed in NY based on specimens that need to be checked (Werier et al. 2023). All were collected before 1988 and 12 are from the 1800s (Werier et al. 2023). Most of these locations are around the New York City area and on Long Island. It is likely that many urban populations have been displaced by development.

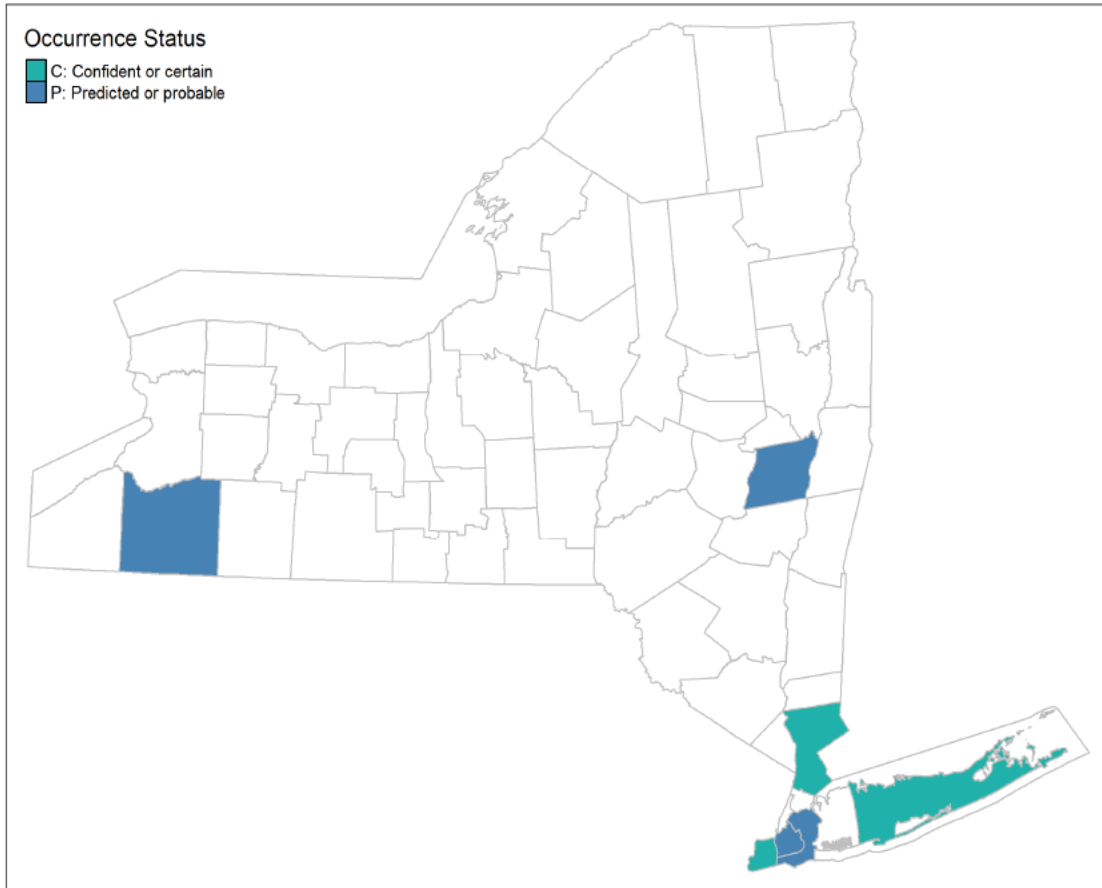


Figure 22: NYS distribution for *Gamochaeta purpurea*.

Table 1. Number of records (element occurrences) of *Gamochaeta purpurea* grouped by the dates known to be extant (the years spanning first observation to last observation) and the number and percent of total of USGS 7.5 minute map quadrangles these observations fall within for New York State.

Years	# of Records	# of distinct quads	% of quads in State
Pre-1995	1	1	0.1
1995-2004	0	0	0
2005-2014	0	0	0
2015-2023	0	0	0

Monitoring in New York

No purple cudweed populations occur on State Park lands. No regular monitoring program is currently in place in New York.

IV. Primary Habitat or Community Type (from NY crosswalk of NE Aquatic, Marine, or Terrestrial Habitat Classification Systems):

Northeastern Terrestrial Habitat Classification Macrogroups: Agricultural, Disturbed Land Pioneer/Successional Shrublands & Grasslands, Maintained Grasses and Mixed Cover, Maritime Dunes

NYNHP Ecological Communities: Mowed lawn, Maritime freshwater interdunal swales, Successional old field, Cropland (abandoned) (Edinger et al. 2014, NYNHP 2023, 2024).

Habitat or Community Type Trend in New York

Declining: **Stable:** **Increasing:** **Unknown:** ✓
Time Frame of Decline/Increase:
Habitat Specialist **Yes:** **No:** ✓

Habitat Discussion:

Based on NY specimen label notes, purple cudweed is found on eroding sandy banks with *Andropogon scoparius*, *Symphotrichum dumosum*, *Quercus velutina* and *Daucus carota*; in a mowed yard with *Acalypha rhomboidea*, *Plantago major* and *Digitaria*; in drier maritime interdunal swales with *Artemisia campestris*, *Solidago tenuifolia* and *Andropogon scoparius*; in old agricultural fields with *Andropogon scoparius* and *Helianthemum canadense*; weed of flower bed; sandy soil near coast; wet disturbed pine barrens; and cultivated fields (NYNHP 2023, Werier et al. 2023). Dry siliceous or argillaceous soil (Fernald 1950). Sandy soil and waste places (Gleason & Cronquist 1991).

In New England, purple cudweed is found on coastal beaches (sea beaches), forest edges, grassland, meadows/fields, and woodlands (Native Plant Trust 2024).

V. Species Demographics and Life History (include information about species life span, reproductive longevity, reproductive capacity, age to maturity, and ability to disperse and colonize):

Purple cudweed is an annual plant, and as such it completes its life cycle, from germination to the production of seeds, within one growing season, and then dies. Populations will likely fluctuate and move around in response to ecological processes that expose mineral soil.

Table 2. Phenology of *Gamochaeta purpurea* in New York State (NYNHP 2023).

Phenology	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flowering							█					
Fruiting								█				

VI. Threats

Displacement by development in urban areas is the primary threat to purple cudweed in NY (NYNHP 2023, Werier 2023). An assessment of the threats to all purple cudweed populations in NY is needed.

Are there regulatory mechanisms that protect the species or its habitat in New York?

Yes:

No:



Unknown:

If yes, describe mechanism and whether adequate to protect species/habitat:

Describe knowledge of management/conservation actions that are needed for recovery/conservation, or to eliminate, minimize, or compensate for the identified threats:

An assessment of the management needs for all purple cudweed populations in NY is needed.

Complete Conservation Actions table using IUCN conservation actions taxonomy at link below. Use headings 1-6 for Action Category (e.g., Land/Water Protection) and associated subcategories for Action (e.g., Site/Area Protection) -

<https://www.iucnredlist.org/resources/conservation-actions-classification-scheme>

Table 3. Recommended conservation actions for *Gamochaeta purpurea*.

Conservation Actions	
Action Category	Action
Land/water protection	1.1. Site/area protection
Land/water protection	1.2. Resource & habitat protection
Land/water management	2.1. Site/area management
Land/water management	2.2. Invasive/problematic species control
Land/water management	2.3. Habitat & natural process restoration

VII. References

This SSA drew heavily from these resources:

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New York Natural Heritage Program, State University of New York College of Environmental Science and Forestry. 2023. Element Occurrence and Element Dataset. Albany, New York. [Exported 12/14/2023].

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Additional references:

Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY. <https://www.nynhp.org/documents/39/ecocomm2014.pdf>

Fernald, M.L. 1950. Gray's manual of botany. 8th edition. D. Van Nostrand, New York. 1632 pp.

Flora of North America Editorial Committee. 2006. Flora of North America North of Mexico. Vol. 19. Magnoliophyta: Asteridae, Part 6: Asteraceae, part 1. Oxford Univ. Press, New York. xxiv + 579 pp.

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Holmgren, Noel. 1998. The Illustrated Companion to Gleason and Cronquist's Manual. Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York.

Mitchell, Richard S. and Gordon C. Tucker. 1997. Revised Checklist of New York State Plants. Contributions to a Flora of New York State. Checklist IV. Bulletin No. 490. New York State Museum. Albany, NY. 400 pp.

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Ring, Richard M. 2023. New York Rare Plant Status Lists. New York Natural Heritage Program, State University of New York College of Environmental Science and Forestry, Albany, NY. December 2023. 108 pp.