

# Species Status Assessment

<b>Common Name</b>	sea-coast angelica	<b>Date Updated:</b>	2024-03-15
<b>Scientific Name</b>	<i>Angelica lucida</i>	<b>Updated By:</b>	Richard M. Ring
<b>Family</b>	Apiaceae		

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

Sea-coast angelica is a perennial herb in the carrot family (Apiaceae). It is one of three species of *Angelica* in New York, all considered native. The populations in NY comprise the southernmost extent of its range on eastern North America. It is restricted to coastal shrub thickets, beaches, salt pond edges, and high salt marshes, all within Suffolk County in NY. All but two known occurrences grow on Fisher's Island and have not been observed since the early 1990s. Surveys are needed to determine recent trends in overall population as well as number of populations in NY. The majority of the known populations are on private land, so development or landscaping along coastal shorelines is a potential threat, as is the spread of invasive exotic species such as *Rosa rugosa*. Given the accelerating rise in sea levels and sea-coast angelica's habitat near the high tide line, climate change is also a growing threat (NYNHP 2023, 2024).

## I. Status

### a. Current legal protected Status

<b>i. Federal:</b>		<b>Candidate:</b>	
<b>ii. New York:</b>	<u>Threatened</u>		

### b. Natural Heritage Program

<b>i. Global:</b>	<u>G5</u>		
<b>ii. New York:</b>	<u>S2</u>	<b>Tracked by NYNHP?</b>	On Active Tracking List

### Other Ranks:

COSEWIC: Not listed in Canada

IUCN Red List: Not assessed by IUCN Red List

### Status Discussion:

In New York, Sea-coast angelica has a status of Threatened, and is known only from Fishers Island, in the Long Island Sound, and from nearby on the eastern end of Long Island. There are ten known populations, nine of these from Fishers Island, and one population makes up the vast

majority of the overall number of plants, which is estimated to be between 300 and 400 plants. There are no additional historical records of Sea-coast angelica in the state, although there is additional habitat for it on eastern Long Island. Most populations have not been surveyed or assessed since the 1990s (NYNHP 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	T	
Connecticut	Yes	Unknown	Unknown	Unknown	S1	
Massachusetts	Yes	Unknown	Unknown	Unknown	S2	
New Jersey	No	-	-	-		
Pennsylvania	No	-	-	-		
Vermont	No	-	-	-		
Ontario	No	-	-	-		
Quebec	No	-	-	-		

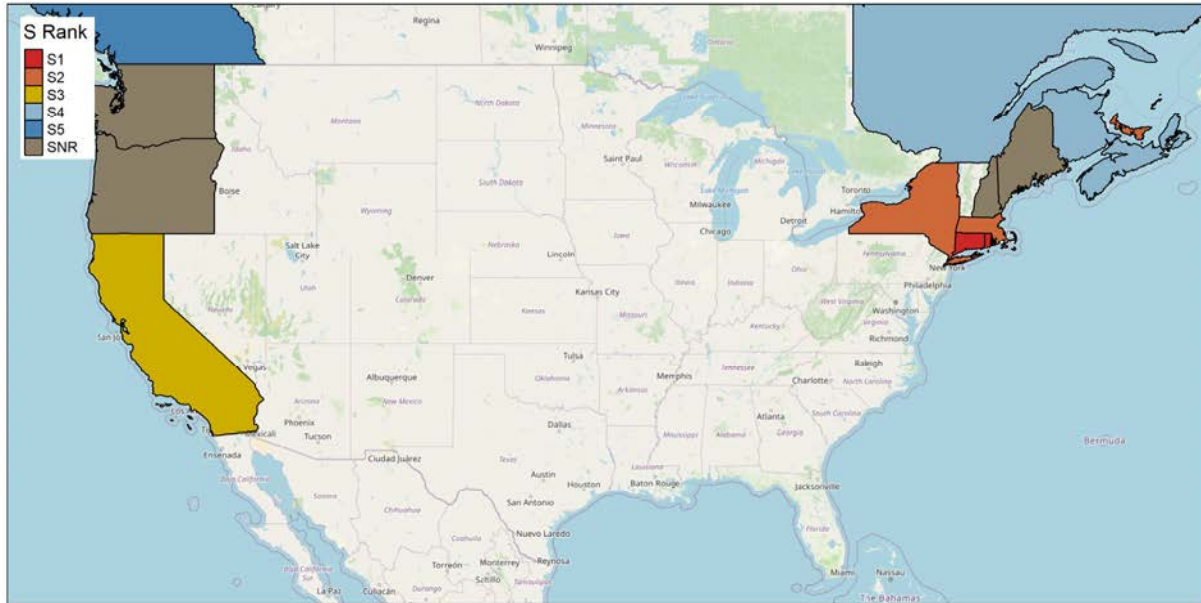


Figure 1 1: Angelica lucida North American distribution.

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 and Trends

#### Trends Discussion

##### *Short term trends (<100 years)*

In the last 100 years, the number of known extant populations of sea-coast angelica has increased from two to ten in the last years, largely through the result of botanical inventory efforts at Fishers Island in the 1990s. So the trend over the last century is upward, but most of the known populations have not been assessed for over 25 years, so more survey efforts are needed to determine recent trends in overall population as well as number of populations (NYNHP 2023).

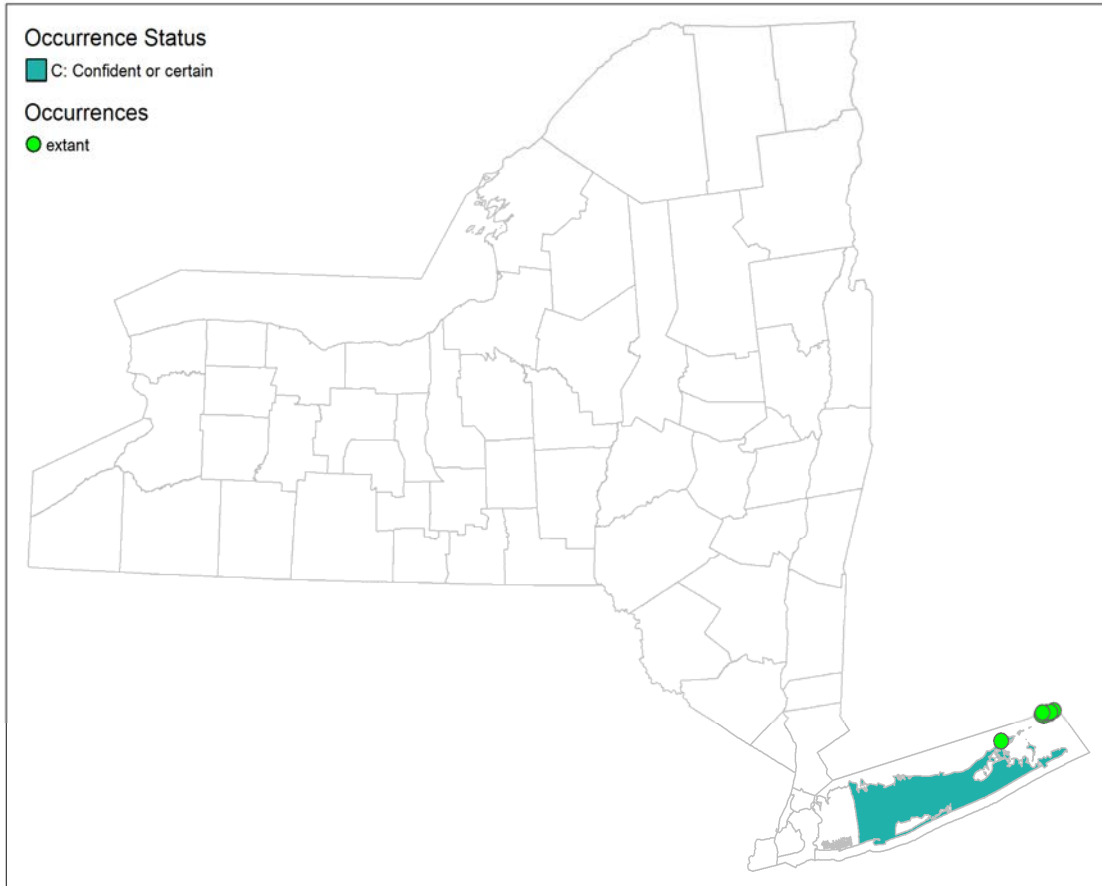
##### *Long term trends*

Sea-coast angelica has likely always been rare in NY. There are only two known collections from the state prior to 1924; one of these is from Fishers Island, and the other from Orient Point at the eastern end of Long Island. The long-term trend therefore shows an increase in number of populations, though this is likely the result of belated inventory efforts on Fishers Island rather than an actual increase in the population (NYNHP 2023).

#### Details of Historic and Current Occurrence

Sea-coast angelica reaches the southeastern extent of its east coast distribution in Long Island Sound. Its range extends to the Atlantic and Arctic coasts of Canada (and Arctic Asia), as well as the Pacific Coast south to California (NatureServe 2023). There are an estimated 300 to 400

plants in NY, the vast majority from one population on Fishers Island, the remainder from elsewhere on Fishers Island and the nearby eastern end of Long Island. There are only two historical collections of the species, from the same two islands. Many of the extant populations have not been surveyed since the 1990s, so the current condition and size of those populations is unknown (NYNHP 2023).



**Figure 12:** NYS distribution for *Angelica lucida*.

**Table 1.** Number of records (element occurrences) of *Angelica lucida* 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	10	3	0.3
1995-2004	0	0	0.0
2005-2014	0	0	0.0
2015-2023	0	0	0.0

## Monitoring in New York

There is no regular monitoring program in place for any of NY's sea-coast angelica populations, many of which have not been assessed since the 1990s.

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

NY Natural Heritage Communities: Maritime Bluff, Maritime Beach, Maritime Shrubland, Coastal Salt Pond, High Salt Marsh (Edinger *et al.* 2014).

### Habitat or Community Type Trend in New York

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

### Habitat Discussion:

In New York, sea-coast angelica has been found primarily in shrub thickets along the coastline of Fishers Island, on rocky substrates not far above the high tide line. It also has been found amongst shrubs on maritime bluffs, at the margin of rocky maritime beaches, and along the edges of salt ponds and high salt marshes (NYNHP 2023). Beaches and rocks along the coast (Gleason and Cronquist, 1991). Rocky and gravelly coast (Fernald, 1970).

## 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):*

Sea-coast angelica is a perennial herb species which may grow up to 1.5 meters tall. It produces the umbel-shaped inflorescences typical of its family (Apiaceae). There are no studies of the pollination of sea-coast angelica specifically, but other members of the Apiaceae are considered to be generalists in regards to pollination, and most often pollinated by Dipterids (flies), while they may also be pollinated by beetles, bees, or ants (Niemrski and Zych 2011). The seeds are likely dispersed by wind and/or animals, though this has not been studied in sea-coast angelica specifically. The longevity of individual plants of sea-coast angelica is unknown, although the known populations at Fishers Island have persisted for at least 30 years and possibly much longer (NYNHP 2023).

**Table 2.** Phenology of *Angelica lucida* in New York State (NYNHP 2023).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Flowering</b>												
<b>Fruiting</b>												

## VI. Threats

The majority of the known populations are on private land, so development or landscaping along coastal shorelines is a potential threat, as is the spread of invasive exotic species such as *Rosa rugosa*. Given the accelerating rise in sea levels and sea-coast angelica's habitat, climate change is also a growing threat.

### 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:

Protection of the shoreline habitats where sea-coast angelica occurs, as well as regular monitoring (and where appropriate, management of invasive shrubs) 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 *Angelica lucida*.

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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