

# Species Status Assessment

**Common Name:** Needham's skimmer

**Date Updated:** April 2025

**Scientific Name:** *Libellula needhami*

**Minor Edits By:** NYSDEC Wildlife Section

**Class:** Insecta

**Family:** Libellulidae

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

In the United States, Needham's skimmer (*Libellula needhami*) is found from the southern states which border the Gulf of Mexico, northward along the Atlantic coastline to southern Maine. The range extends from the southern United States to Quintana Roo, Mexico, in the Florida Keys, Cuba, and the Bahamas (Dunkle 2000). *L. needhami* is found in the southern portion of New York state, in the counties of Westchester, Putnam, Orange, Rockland, Richmond, Kings, Queens, Nassau, and Suffolk (Donnelly 1999). This skimmer has been confirmed in at least 16 locations across these counties and has been observed in at least nine other locations, many of which were documented since 1997 (New York Natural Heritage Program 2010). The effort from the New York State Dragonfly and Damselfly Survey (NYDDS) added a number of new records for this species.

*L. needhami* is known to inhabit brackish backwaters, marshes, lakes, ponds, tidal rivers, and canals throughout its range. In New York, most NYDDS sightings occurred near marshes, ponds, rivers, and included sites with brackish water (White *et al.* 2010).

DEC is not aware of any additional data or new information on population trends or threats to this species since the last SWAP revision in 2015 to indicate a need for change in SGCN status.

## I. Status

### a. Current legal protected Status

i. **Federal:** Not listed **Candidate:** No

ii. **New York:** Not listed

### b. Natural Heritage Program

i. **Global:** G5

ii. **New York:** S3 **Tracked by NYNHP?:** Yes

### Other Ranks:

-NYS 2025 SGCN Status: SGCN

-IUCN Red List: Least Concern

-Northeast Regional SGCN: Not listed

### Status Discussion:

White *et al.* (2010) calculated a revised draft S-rank of S3 from S2S3.

It is considered either uncommon or local, typically with 21-100 occurrences, limited acreage, or miles of stream in New York State.

## II. Abundance and Distribution Trends

| Region          | Present? | Abundance | Distribution | Time Frame | Listing status | SGCN? |
|-----------------|----------|-----------|--------------|------------|----------------|-------|
| North America   | Yes      | Unknown   | Unknown      |            |                | -     |
| Northeastern US | Yes      | Unknown   | Stable       |            |                | -     |
| New York        | Yes      | Unknown   | Stable       |            |                | Yes   |
| Connecticut     | Yes      | Unknown   | Unknown      |            |                | Yes   |
| Massachusetts   | No data  | -         | -            |            |                | -     |
| New Jersey      | No data  | -         | -            |            |                | -     |
| Pennsylvania    | No data  | -         | -            |            |                | -     |
| Vermont         | No       | -         | -            |            |                | -     |
| Ontario         | No       | -         | -            |            |                | -     |
| Quebec          | No       | -         | -            |            |                | -     |

*Column options*

**Present?:** Yes; No; Unknown; No data; (blank) or Choose an Item

**Abundance and Distribution:** Declining; Increasing; Stable; Unknown; Extirpated; N/A; (blank) or Choose an item

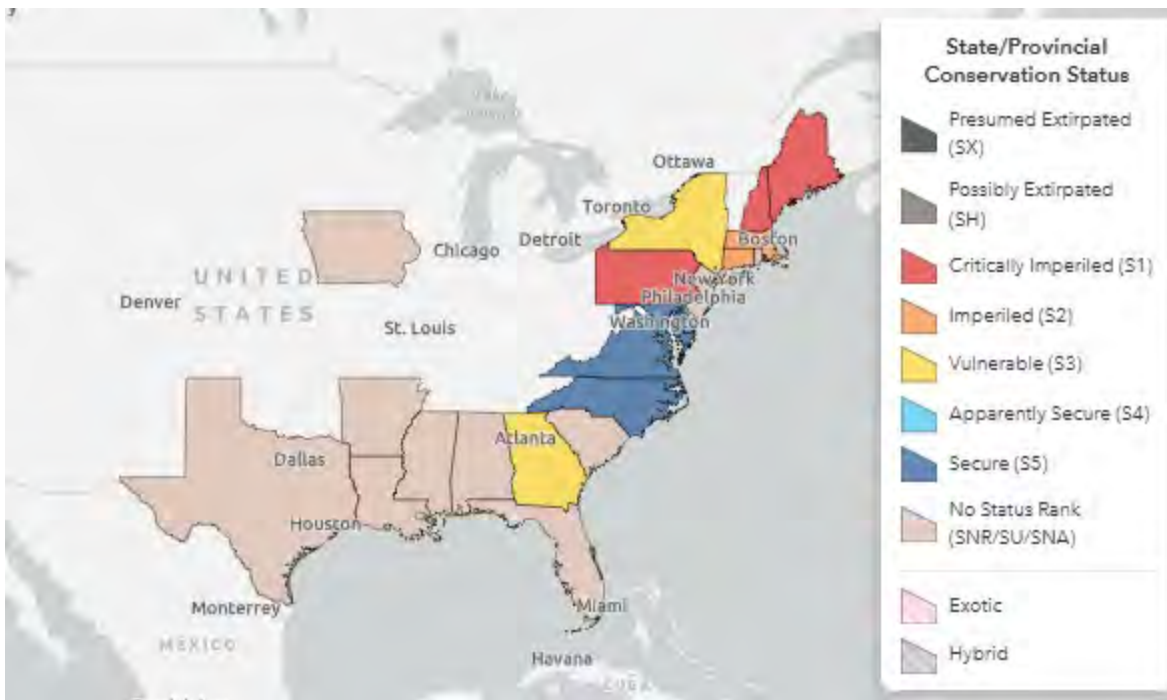
**SGCN?:** Yes; No; Unknown; (blank) or Choose an item

**Monitoring in New York** (*specify any monitoring activities or regular surveys that are conducted in New York*):

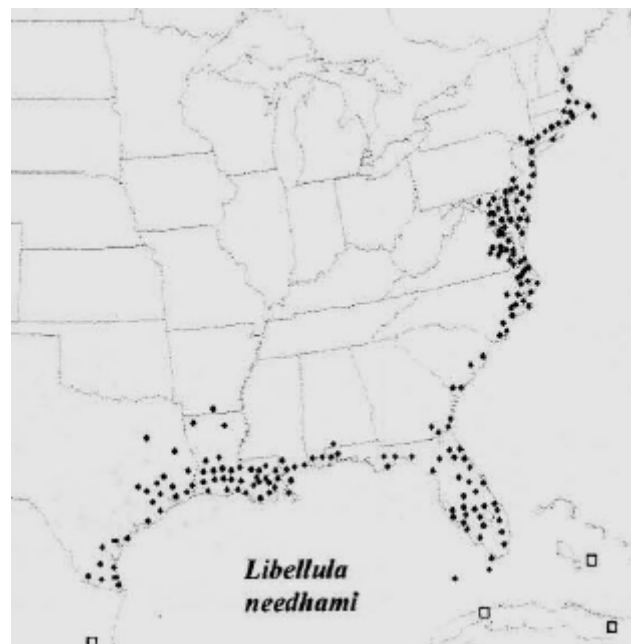
The New York Dragonfly and Damselfly Survey covered the period 2005-2009 and while some volunteers from that project continue to do some surveys, there are no regular monitoring efforts ongoing for this species or other odonates in New York.

**Trends Discussion** (*insert map of North American/regional distribution and status*):

Six recent observations of *L. needhami* have been made in Putnam, Richmond, Rockland, and Suffolk counties since 1997 (New York Natural Heritage Program 2007). The species is also known to occur in Kings, Orange, and Westchester counties (Donnelly 1999). Since there is limited historical information, few recent records, and the full extent and size of the populations have not been determined, long-term trends are unclear.

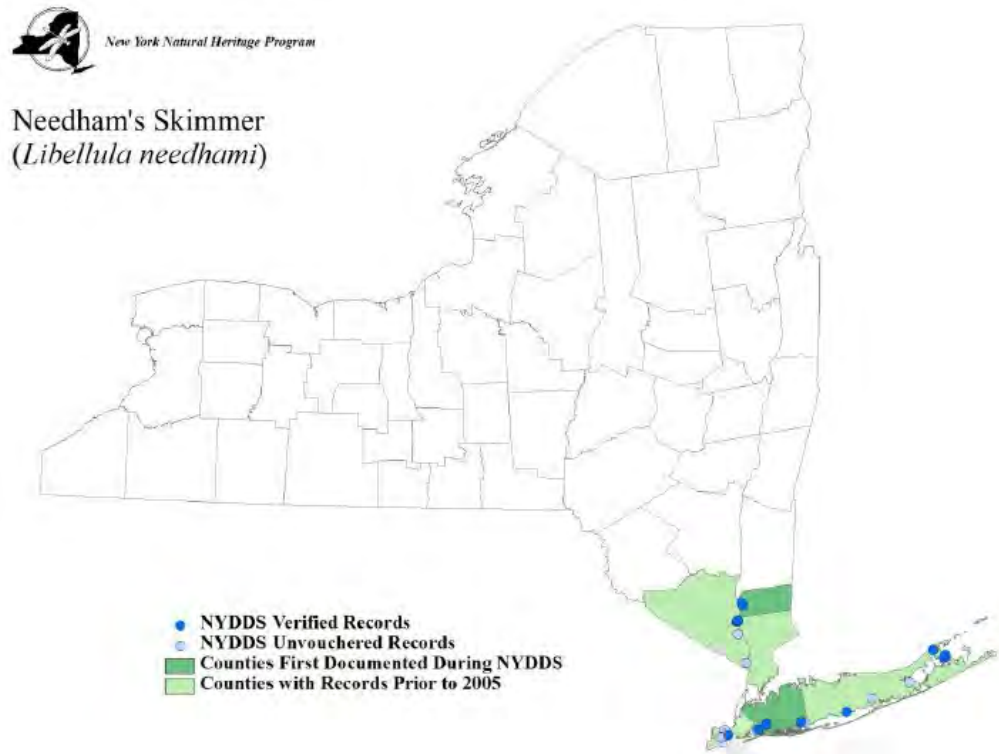


**Figure 1.** Conservation status of *Libellula needhami* in North America (NatureServe 2025).



**Figure 2.** Distribution of Needham's skimmer in the United States (Donnelly 2004).

III. **New York Rarity** (provide map, numbers, and percent of state occupied)



**Figure 3.** Occurrence records of the Needham’s skimmer in New York (White *et al.* 2010).

**Details of historic and current occurrence:**

No historic occurrence information available.

Number of occurrences obtained from the map by White *et al.* (2010) using data collected during The New York Dragonfly and Damselfly Survey 2005-2009.

**New York’s Contribution to Species North American Range:**

| Percent of North American Range in NY | Classification of NY Range | Distance to core population, if not in NY |
|---------------------------------------|----------------------------|---|
| 1-25%                                 | Peripheral                 | ~400 miles                                |

Column options

**Percent of North American Range in NY:** 100% (endemic); 76-99%; 51-75%; 26-50%; 1-25%; 0%; Choose an item

**Classification of NY Range:** Core; Peripheral; Disjunct; (blank) or Choose an item

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

a. Estuarine, brackish marsh

b. Estuarine, coastal pond

c. Estuarine, lake and river and marsh shore/beach

### Habitat or Community Type Trend in New York

| Habitat Specialist? | Indicator Species? | Habitat/Community Trend | Time frame of Decline/Increase |
|---------------------|--------------------|-------------------------|--------------------------------|
| No                  | No                 | Unknown                 |                                |

Column options

**Habitat Specialist and Indicator Species:** Yes; No; Unknown; (blank) or Choose an item

**Habitat/Community Trend:** Declining; Stable; Increasing; Unknown; (blank) or Choose an item

### Habitat Discussion:

*L. needhami* is a coastal species that inhabits ponds, lakes, tidal river areas, and brackish wetlands in New York State (Dunkle 2000, New York Natural Heritage Program 2007, Nikula *et al.* 2003). This is a more coastal species than *Libellula auripennis* (Golden-winged skimmer) which it is believed to outcompete in most habitats (Dunkle 2000).

## V. Species Demographic, and Life History:

| Breeder in NY? | Non-breeder in NY? | Migratory Only? | Summer Resident? | Winter Resident? | Anadromous/Catadromous? |
|----------------|--------------------|-----------------|------------------|------------------|-------------------------|
| Yes            | -                  | -               | Yes              | Yes              | -                       |

Column options

**First 5 fields:** Yes; No; Unknown; (blank) or Choose an item

**Anadromous/Catadromous:** Anadromous; Catadromous; (blank) or Choose an item

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

Larvae are aquatic and found in the water during this life stage, whereas adults are terrestrial and are found in habitats surrounding ponds, lakes, and brackish wetlands. Adults of both sexes of *L. needhami* are known to forage in marshes in coastal areas. Territorial males perch horizontally or obliquely from emergent or shoreline vegetation (Nikula *et al.* 2003).

This is a summer species. The adult flight period for New York from NYDDS records was from June 21 through September 5, with over half of the records coming from the month of July (White *et al.* 2010). Though Donnelly (1999) mentions records from as early as May these are probably less common. The flight period for New Jersey has been documented as May 19 to September 20 (Bangma and Barlow 2010).

**VI. Threats** (from NY 2015 SWAP or newly described):

| <b>Threat Level 1</b>                   | <b>Threat Level 2</b>                    | <b>Threat Level 3</b>                                      | <b>Spatial Extent</b> | <b>Severity</b> | <b>Immediacy</b> | <b>Trend</b>    | <b>Certainty</b> |
|---|--|--|-----------------------|-----------------|------------------|-----------------|------------------|
| 7. Natural System Modifications         | 7.2 Dams & Water Management/Use          | 7.2.7 Withdrawal of groundwater (withdrawal for urban use) | Choose an item.       | Choose an item. | Choose an item.  | Choose an item. | Choose an item.  |
| 7. Natural System Modifications         | 7.2 Dams & Water Management/Use          | (ditching and filling in)                                  | Choose an item.       | Choose an item. | Choose an item.  | Choose an item. | Choose an item.  |
| 8. Invasive & Other Problematic Species | 8.1 Invasive Non-Native Plants & Animals | 8.1.4 Aquatic plants (phragmites)                          | Choose an item.       | Choose an item. | Choose an item.  | Choose an item. | Choose an item.  |
| 9. Pollution                            | 9.1 Domestic & Urban Wastewater          | 9.1.1 Domestic wastewater (sewage)                         | Choose an item.       | Choose an item. | Choose an item.  | Choose an item. | Choose an item.  |
| 11. Climate Change                      | 11.1 Habitat Shifting & Alteration       | (sea level rise)   | Choose an item.       | Choose an item. | Choose an item.  | Choose an item. | Choose an item.  |

**Table 1.** Threats to *libellula needhami*.

Any activity that might lead to water contamination or the alteration of natural hydrology could affect Needham's skimmer populations. Such threats might include ditching, filling, eutrophication, agricultural run-off or other chemical contamination, increases in sedimentation, and changes in dissolved oxygen content (New York Natural Heritage Program 2011). In New Hampshire, this species occurs in slightly-degraded coastal habitats including ponds that receive road runoff (P. Hunt, personal communication).

The species has not been assessed at this time, but is has been identified by The New York Natural Heritage Program, the NYS Department of Environmental Conservation, and the Nature Conservancy as a second-priority species recommended for assessment of vulnerability to predicted climate change (Schlesinger *et al.* 2011).

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

Yes:   X                        No:                             Unknown:       

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

The Freshwater Wetlands Act provides protection for wetlands greater than 12.4 acres in size under Article 24 of the NYS Conservation Law. The Tidal Wetlands Act protects all tidal wetland habitats and adjacent areas under Article 25 of the NYS Conservation Law.

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

Any measures to reduce water contamination or hydrological alteration such as chemical contamination from agricultural run-off should be considered when managing for this species (New York Natural Heritage Program 2011).

| Action Category                                   | Action   | Description |
|---|--|-------------|
| C.7 Legislative and Regulatory Framework or Tools | C.7.1.3.0 Create, amend, or influence regulation |             |
| C.7 Legislative and Regulatory Framework or Tools | C.7.2.1.0 Create or amend policies               |             |

**Table 2.** Recommended conservation actions for *Libellula needhami*.

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for odonates of brackish marshes, lakes, and ponds, and for Needham's skimmer in particular.

**Habitat monitoring:**

\_\_\_\_\_ Support and encourage habitat monitoring efforts that would complete the baseline assessment of habitat quality and threats.

**Habitat research:**

\_\_\_\_\_ Support and encourage research projects that will help define preferred habitat in order to guide future monitoring, restoration and habitat protection efforts.

**New regulation:**

\_\_\_\_\_ Recommendations for official state endangered, threatened, and special concern listing are an anticipated result of the statewide inventory. It is expected that either one or both of these species could be recommended for listing and officially adding these species to the list would constitute a specific action.

**Population monitoring:**

\_\_\_\_\_ Conduct surveys to obtain repeatable, relative abundance estimates for these species at known sites and newly discovered sites where access permission to conduct surveys is obtained (as indicated in the State Wildlife Grant Odonate Inventory Project).

**Statewide baseline survey:**

\_\_\_\_\_ Both of these species are known from fewer than 10 locations in the state, but new populations undoubtedly remain to be discovered. A currently approved, but not yet begun State Wildlife Grant Statewide Odonate Inventory Project will utilize volunteers, Natural Heritage Program and other staff to conduct surveys for these species at potential sites throughout the state ( where brackish habitats occur - LNE and NAC ecoregions).

## VII. References

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Experts Consulted:

Pamela Hunt, NH Audubon

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|                               |                                   |
|-------------------------------|-----------------------------------|
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| <b>Date first prepared</b>    | May 14, 2012                      |
| <b>First revision</b>         | Samantha Hoff (February 4, 2014). |
| <b>Latest revision</b>        |                                   |