Species Status Assessment

Common Name: Yellow-sided skimmer **Date Updated:** January 4, 2024

Scientific Name: *Libellula flavida* **Updated By:** Erin L. White

Class: Insecta

Family: Libellulidae

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

New York state lies at the northern range extent for the yellow-sided skimmer (*Libellula flavida*), which runs from Texas north to Oklahoma and Missouri east to the Atlantic coast and north to southern New York (NatureServe 2024). Older records exist for Westchester and Suffolk counties. One confirmed extant location is at Clay Pit Ponds State Park Preserve on Staten Island, near sphagnum bogs and sandy barrens (Lederer 1997).

The species is known to inhabit mucky or boggy seepages, most commonly along the coastal plain (Dunkle 2000). In New Jersey, they have been found in acidic bogs with sphagnum moss, mainly in abandoned cranberry bogs and along the coastal plain (Barber 1999, Bangma and Barlow 2010). In New York, habitat where the species was previously known on Long Island has been degraded and there are no recent records. However, a stable population was first documented on Staten Island in 1997 in an area with habitat including sandy barrens and sphagnum bogs (Lederer 1997).

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:** S1 **Tracked by NYNHP?:** Yes

Other Ranks:

-NYS 2025 SGCN Status: High Priority Species of Greatest Conservation Need

-IUCN Red List: Least Concern

-Northeast Regional Rank (White et al.2015): R2, shared responsibility

Status Discussion:

White *et al.* (2010) suggests that the status remain S1. Based on rarity, trend, and threat information, this species is recommended for HPSGCN status in NY.

II. Abundance and Distribution Trends

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
North America	Yes	Unknown	Unknown	Last assessment 1988		-
Northeastern US	Yes	Unknown	Declining	Pre and post 2000	R2	No
New York	Yes	-	Declining	Pre and post 2005	S1; HPSGCN	Yes
Connecticut	No	-	-			-
Massachusetts	No	Unknown	Unknown			No
New Jersey	Yes	Unknown	Unknown		S4	No
Pennsylvania	Yes	Unknown	Unknown		S1	Yes
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 State Dragonfly and Damselfly Survey was conducted from 2005-2009, but there are no organized, regular monitoring or survey activities directed toward this species or to sites where it has been documented.

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

Sightings of this species are fairly recent and infrequent in New York; therefore, short-term trends are unclear. Recent observations since 1997 have been made on Staten Island (and two other probable sightings in Richmond and Suffolk counties), but information prior to this is limited (Donnelly 1999). There is some evidence that sites on Long Island where it once occurred have been degraded and the species was once known from Westchester County as well, so populations may be in decline. There are no additional records besides the one probable record from Suffolk county with the recent efforts of the New York Dragonfly and Damselfly Survey (2005-2009) and the Staten Island Dragonfly Survey (White et al. 2010, Wollney 2011).

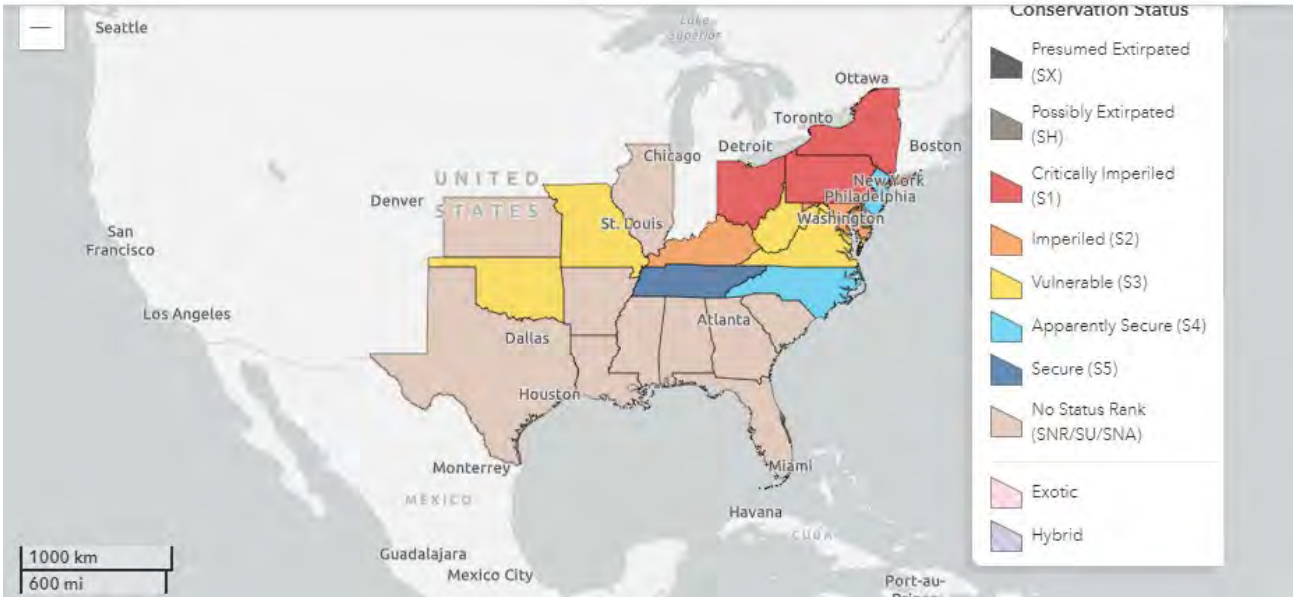

Figure 1. Conservation status of the Yellow-sided Skimmer in North America (NatureServe 2024).

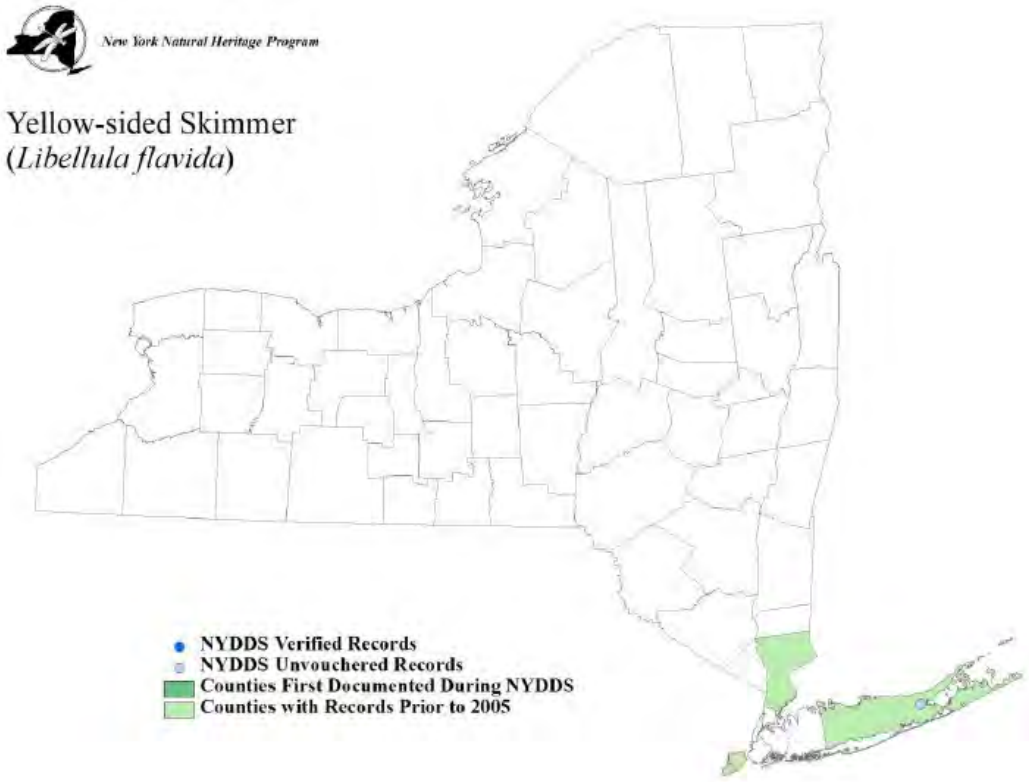

Figure 2. Occurrence record of the Yellow-sided Skimmer in New York during the NYDDS (White *et al.* 2010).

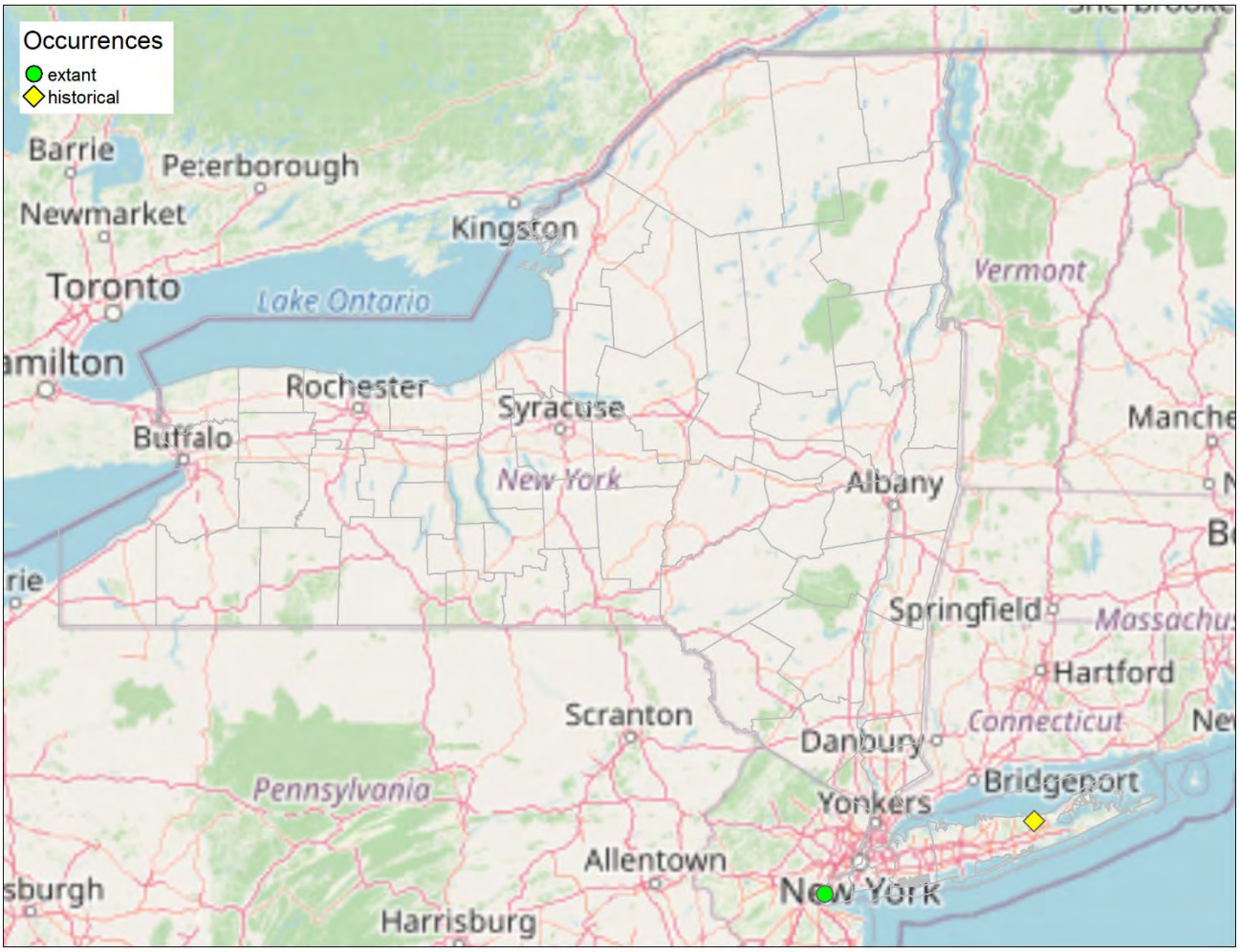

Figure 3. NYNHP element occurrence records for the Yellow-sided Skimmer in NY (NYNHP 2024).

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

In New York, *Libellula flavida* has only been confirmed extant at one location on Staten Island and one other probable location in Suffolk County (White *et al*. 2010, New York Natural Heritage Program 2024, Lederer 1997). There are historical locations in Westchester and Suffolk counties, where they have not been documented in recent years and there is at least some suggestion that these historical sites are no longer occupied (Donnelly 1999).

Information prior to 1997 is limited (Donnelly 1999). There is some evidence that sites on Long Island where the yellow-sided skimmer once occurred have been degraded and the species was once known from Westchester County as well, so populations may be in decline.

There are no additional records, even from recent efforts of the New York Dragonfly and Damselfly Survey (2005-2009) and the Staten Island Dragonfly Survey (White et al. 2010, Wollney 2011).

Years	# of Records	# of Counties	% of State
Pre-2004	5	3	1-5%
2005-2009	1?	1?	<1-2%
2010-2023	0	0	0%

Table 1. Records of yellow-sided skimmer in New York.

Details of historic and current occurrence:

Historical records for New York are from Westchester County (location not identified), and three locations in Suffolk County, including Wading River, Riverhead, and Long Pond (Donnelly 1992).

The one confirmed extant site is from 1997 at Clay Pit Ponds State Park on Staten Island, a few years prior to the New York Dragonfly and Damselfly Survey (Lederer 1997, Donnelly 1999, White *et al*. 2010). There is also an unconfirmed record from July 2005 at Cranberry Bog County Park in Suffolk County. This record is slightly uncertain as the photograph could not be separated from an immature *Libellula incesta* (White *et al*. 2010, iNaturalist 2024). There are no records on Odonata Central for this species (Abbott 2024).

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	~900 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):*

1. Open Acidic Peatlands
2. Open Alkaline Peatlands
3. Coastal Plain Pond

Habitat or Community Type Trend in New York

Habitat Specialist?	Indicator Species?	Habitat/ Community Trend	Time frame of Decline/Increase
Yes	No	Declining	

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:

From White et al. 2010: *Libellula flavida* is known to inhabit mucky or boggy seepages mainly along the coastal plain (Dunkle 2000). In New Jersey, the species has been found in acidic bogs with Sphagnum moss, mainly in abandoned cranberry bogs and along the coastal plain (Barber 1999, Bangma and Barlow 2010). In New York, a population was first documented on Staten Island in 1997 in an area with sandy barrens and sphagnum bog habitat (Lederer 1997).

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):*

Males are weakly territorial and "perch on stems and twigs at the tops of low vegetation and fly back and forth over a small area with frequent hovering for a few seconds. They do more flying than perching. Females [spend time] nearby in open woodland, usually not far from the breeding habitat. Copulation [occurs] at rest for approximately 30 seconds, then [the] female perches for 10-15 seconds before ovipositing. [Oviposition occurs] by hovering 6 inches above the water, dropping to tap the water once, then rising again and repeating the process several hundred times with brief perching at intervals. [The] male guards at first but not throughout the process" (Paulson 2011).

In New York, the flight season is recorded as June-July, and Lederer's (1997) specimen was captured on 19 July, while the Suffolk County observation was on 3 July. Adults have been observed in New Jersey from 11 May to 4 September (Bangma and Barlow 2010) and are known throughout their range to fly from mid-March to early October (Dunkle 2000).

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

Any activity which might lead to water contamination or the alteration of natural hydrology could impact yellow-sided skimmer populations (Novak 2006). Such threats might include roadway and agricultural run-off, ditching and filling, eutrophication, changes in dissolved oxygen content, and development near their habitats (Novak 2006). Groundwater withdrawal is a potential threat, as are invasive species at one of the probable sites in Suffolk County (New York Natural Heritage Program 2024). Both emergence rates and/or species ranges may shift for odonate species as a result of climate change (Kalkman *et al.* 2008).

Threats to NY Populations	
Threat Category	**Threat**
1. Climate Change & Severe Weather	Habitat Shifting & Alteration

2. Climate Change & Severe Weather	Temperature Extremes
3. Pollution	Industrial & Military Effluents (acid rain, mercury)
4. Climate Change & Severe Weather	Droughts

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:

The Tidal Wetlands Act provides protection for all tidal wetlands under Article 25 of the NYS Conservation Law. The Freshwater Wetlands Act provides protection for wetlands greater than 12.4 acres in size under Article 24 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 efforts to reduce roadway and agricultural run-off, eutrophication, ditching and filling activities, and development of upland borders and resulting increased groundwater withdrawal should be considered when managing for this species (Novak 2006).

Further research is needed to define the distribution and population size of yellow-sided skimmers in New York. In addition, research is required to understand the habitat requirements and threats to this species, and to create appropriate management guidelines for its persistence in known locations (Novak 2006).

Although the Clay Pit Ponds State Park Preserve site on Staten Island is located on state-owned protected land, efforts should be made to monitor this population with habitat and threat assessments. Two females have been observed by an experienced surveyor in Cranberry Bog County Park in Suffolk County since 2005 (White *et al.* 2010). Although the photo is slightly uncertain because experts could not separate it from an immature *L. incesta*, the site should be monitored as a probable site for the species. In addition, further searching during the flight season in appropriate habitats at locations in southern New York and Long Island may reveal other populations of this species (White *et al.* 2010).

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for odonates of bogs, fens, and ponds, and for the yellow-sided 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 at least a few species will 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.

Conservation Actions	
Action Category	**Action**
1. Land/Water Protection	Resource and habitat protection
2. Land/Water Protection	Site/area protection
3. Land/water management	Site/area management
4. Land/water management	Habitat & natural process restoration
5. Land/water management	Invasives/problematic species control
3. Education and Awareness	Awareness & Communications
3. Education and Awareness	Training
4. Law and Policy	Policies and Regulations

Table 3. Recommended conservation actions for yellow-sided skimmer

VII. References

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