Species Status Assessment

Common Name: Double-ringed pennant **Date Updated:** 2025-02-13

Scientific Name: *Celithemis verna* **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):*

This species was discovered as a new member of New York's odonate fauna in 2005 during the NYDDS (Brown 2005, White *et al*. 2010) and has since been found at several other locales. It is only known from a handful of coastal plain ponds in eastern Suffolk County. This forms the extreme northeastern range boundary of this southerly species. The species favors primarily coastal plain ponds and appears to be expanding its range (Brown 2005).

I. Status

a. Current legal protected Status

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

ii. **New York:** Unprotected

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 2016

-Northeast Regional Rank (White et al.2015): R4 vulnerability and Shared responsibility

Status Discussion:

This is a newly documented species in New York discovered at about seven locales in the state during NYDDS (White *et al.* 2010), constituting 2 element occurrences. At a few of the locales, dragonflies have been observed on several different occasions, at others they have been seen just once. This species ranges quite abundantly throughout the southern US and at multiple locations in New York it appears to be rather abundant. It has been observed at these occurrences in recent years and has also been documented in 2 additional locations (one in Suffolk and one in Richmond County; iNaturalist 2025). The species remains rare as an S1.

II. Abundance and Distribution Trends

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
North America	Yes	Unknown	Unknown			-
Northeastern US	Yes	Unknown	Increasing			No
New York	Yes	Unknown	Increasing		S1	Yes
Connecticut	Yes	-	-		SNR	No
Massachusetts	No	-	-			-
New Jersey	Yes	-	-		SNR	No
Pennsylvania	No	-	-			-
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 (NYDDS) 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):*

Recent survey efforts have expanded the known range of this species northeastward to New York. This probably indicates a recent range expansion, but could also simply be due to increased attention by Odonatologists (Brown, 2005).

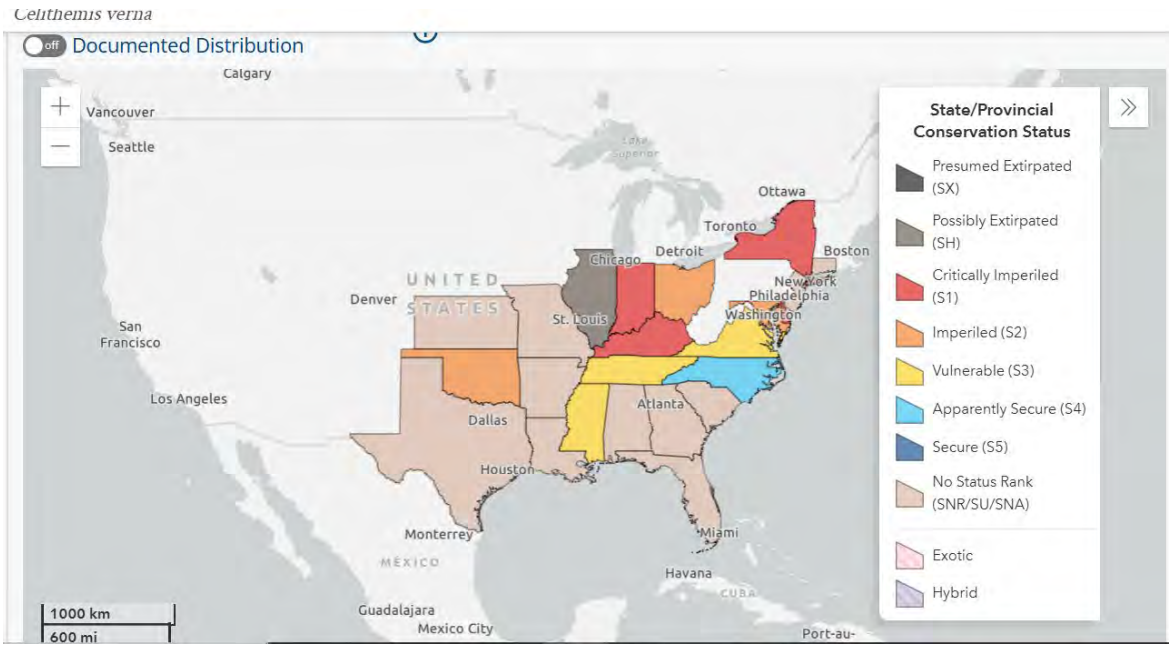

Figure 1. Double-ringed Pennant distribution (NatureServe 2025)

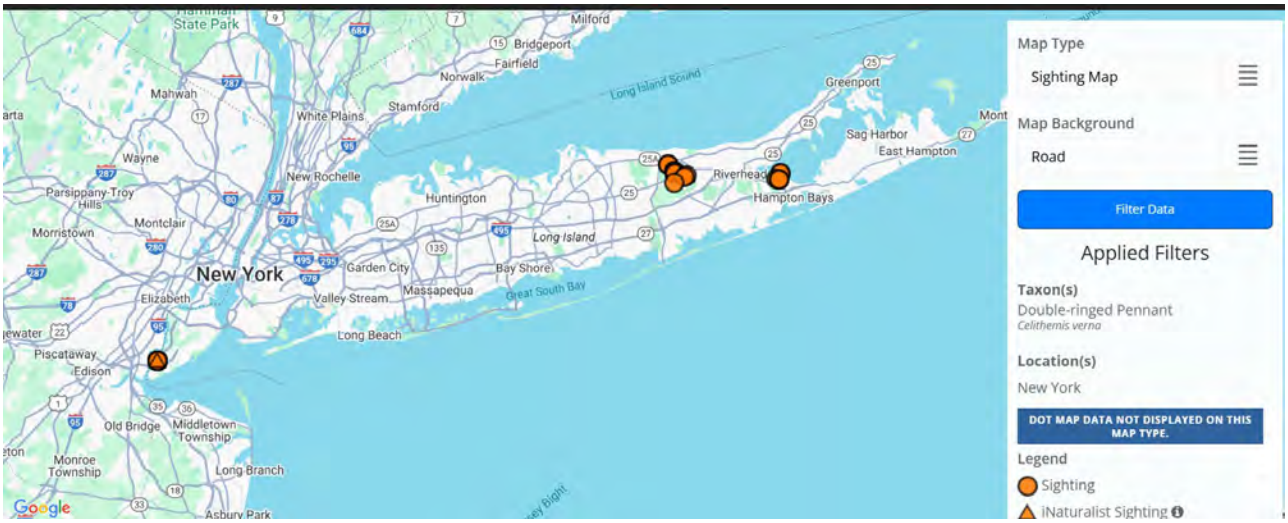

Figure 2. Double-ringed Pennant NY distribution (Abbott 2025)

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

Years	# of Records	# of Counties	% of State
Pre-2004	0	0	0
2005-2009	2 EOs	1	1.6
2010-2023	4 EOs	2	3.2

Table 1. Records of (species) in New York.

Details of historic and current occurrence:

This species was newly discovered in New York on a pond in Suffolk Co. in 2005 (Brown, 2005), and also at a handful of additional nearby ponds throughout the duration of NYDDS consisting of two element occurrences (White *et al*., 2010), Sears Bellows wetlands and the Calverton ponds. The species has been observed in both of these pond-chain locations in more recent years (2019-2023) with additional sites in Flanders in 2023 (Suffolk) and Long Pond Park in 2011, Richmond County (iNaturalist 2025).

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	~700 mi

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):*

Coastal Plain Pond

Habitat or Community Type Trend in New York

Habitat Specialist?	Indicator Species?	Habitat/ Community Trend	Time frame of Decline/Increase
No	No	Choose an item.	

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:

Peasys Pond is an oblong coastal plain pond with abundant floating and emergent vegetation. The substreate is sand with deep muck overlying the sand. The surrounding landscape is forested with pitch pine and scrub oak. Small, round coastal plain pond with graminoid and floating vegetation and forbs. The shoreline is boggy with a water depth of 1-2.5 feet. Water depth was 6 inches to 1 1/2 feet. Pond shore vegetation includes rushes and sedges, sundew, cranberry and water lily. Vegetation in the surrounding uplands includes highbush blueberry, sweet pepperbush, pitch pine, and oaks. Fox Pond is in a cluster of small ponds apparently connected by small streams. Small round pond with emergent graminoids and forbes and a boggy shoreline; 2-2.5 ft. water level at survey. Fragrant water lily is present throughout the pond, even in patches of emergent vegetation on the pond shore.

V. Species Demographic, and Life History:

Breeder in NY?	Non-breeder in NY?	Migratory Only?	Summer Resident?	Winter Resident?	Anadromous/ Catadromous?
Yes	Choose an item.	Choose an item.	Yes	Yes	Choose an item.

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):*

The species forages in open fields, where males perch on tips of emergent plants and patrol area of about 20' diameter along wooded shorelines (Dunkle, 2000). Its primary flight season in New York is June and early July.

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

SCOPE: Spatial proportion of the distribution that is expected to be affected in the next 10 years (**narrow**= 1-10%; **restricted**=11-30%; **widespread**=31-70%; **pervasive**= 71-100%).

SEVERITY: The degree of population reduction in the next 10 years that can be reasonably expected from the threat given the current circumstances and trends (**low**=degrade/reduce population by 1-10%; **medium**=d/r population by 11-30%; **high**=d/r population by 30-70%; **very high**=d/r population by 71-100%).

IRREVERSIBILITY: The degree to which the effects can be reduced and the species restored (**low**=easily reversed, at a low cost, and/or within 0-5 years; **medium**=can be reversed with a reasonable commitment of resources and/or within 6-20 years; **high**=can technically be reversed, but not practicably affordable and/or it would take 21-100 years; **very high**=cannot be reversed and species not likely to be restore and/or it would take >100 years).

Threats to NY Populations				
Threat Category	**Threat**	**Scope**	**Severity**	**Irreversibility**
1. Natural Systems Modifications	Dams & Water Management/Use (alteration of natural hydrology)	W	M	M
2. Residential & Commercial Development	Housing & Urban Areas (habitat loss)	P	M	H
3. Pollution	Agriculture & Forestry Effluents (runoff, pesticides)	R	L	M
4. Pollution	Household Sewage & Urban Wastewater (poor water quality)	P	L	L

Little published information is available citing specific cases of negative impacts to pond odonates, but any activities which degrade the sensitive hydrology of these habitats would threaten populations of these species. Examples include peat mining, ditching, filling, eutrophication and changes in dissolved oxygen content, direct effects of pesticides (e.g. for mosquito control or from agricultural runoff), and increases in the sediment load of the wetland (such as might result should logging occur down to the wetland edge). Natural succession could also threaten some sites as shallow pools fill in with vegetation over time (Novak 2006).

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:

Article 15 of Environmental Conservation Law provides protection of rivers, streams, lakes and ponds through the Protection of Waters permit program. This is not adequate to protect the habitat/species.

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 agricultural run-off, upland development, and damming that would affect flow of small forested streams should be considered when managing for this species (New York Natural Heritage Program 2011).

Given the apparent range expansion suggested by the increasing number of recent records, monitoring of some subset of sites in the face of climate change may shed light on whther this is a threat to the spcies or a possible factor involved in the range change.

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for odonates of ponds.

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 concrete action. Four of the species are currently listed as Special Concern, but it is possible a change in their listing status may be warranted following additional surveys.
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). Maintain existing populations and, if needed and possible, establish or restore additional populations, to ensure the long-term persistence of these species in New York State.

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 (species)

VII. References

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