

# Species Status Assessment

**Common Name:** Septima's clubtail

**Date Updated:** March 2025

**Scientific Name:** *Gomphurus septima* **Minor Edits By:** NYSDEC Wildlife Section

**Class:** Insecta

**Family:** Gomphidae

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

Septima's clubtail (*Gomphus septima*) is divided into two subspecies, *G. septima septima* and *G. septima delawarensis*. *G. septima septima* is known only from Alabama, where it was recently rediscovered, and North and South Carolina. It was first discovered in the 1930s (Westfall Jr. 1956). The Delaware River endemic, *G. septima delawarensis*, was not discovered until 1993. It is endemic to only the Delaware River in New York, Pennsylvania, and New Jersey from Mercer County New Jersey (Bangma and Barlow 2010), northward to the Pepacton Reservoir on the East Branch of the Delaware River in Delaware County, a stretch of about 360 km (White *et al.* 2010). According to Donnelly and Carle (2000), *G. septima delawarensis* is different enough from its close relative, *G. septima*, that it could be described as an independent species, rather than a subspecies.

Specific locations for *G. septima* in New York include Port Jervis, Barryville, Minisink Ford, Tusten, Narrowsburg, Skinner's Falls, Cohecton, and Callicoon. Most specimens were found in 1994 and 1995 along a 50-km strip between Barryville and Callicoon, in Sullivan County when intensive collecting (~80 adults) was done for Donnelly and Carle's (2000) subspecies description. At least 50 adults were taken over 20 days in 1994 (Bick 2003). The species was not seen along the upper Delaware in New York from 1996 to 2007. On 7 June 2008, a single adult female (probable *G. septima*) was photographed at Port Jervis along the Delaware River. The status of the species on the New Jersey side of the upper Delaware is unknown. There is a presumed uninhabited stretch of about 65 km between Callicoon, the northern-most known locale on the upper Delaware, to Downsville in Delaware County on the east branch, where a male and a female were collected in 1995 (Donnelly 1999, Donnelly and Carle 2000). The species was not detected in the vicinity of Long Eddy, nor between Hankins to Cohecton, or Port Jervis, in 1998 (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:** Special Concern

### b. Natural Heritage Program

i. **Global:** G2

ii. **New York:** S1 **Tracked by NYNHP?:** Yes

### Other Ranks:

-NYS 2025 SGCN Status: HPSGCN

-IUCN Red List: Least Concern

-Northeast Regional SGCN: RSGCN

**Status Discussion:**

While there is consensus that *G. septima* is in need of protection and research, experts disagree on how to describe the abundance and distribution trends for this species in New York. Directed collection efforts in 1994 and 1995 removed as many as 80 adults, suggesting the species was abundant at that time. There have been no records in New York since 1995, however, despite a dozen or more surveys between 2005 and 2010, which is suggestive of a severe decline. Yet only about half of these surveys were conducted solidly within the flight window when adults can be found, and it is therefore possible that survey effort has been insufficient to detect the species, much less a reliable trend in the abundance or distribution. These trends have been categorized as Unknown, and more information on this rare and localized species is clearly needed.

White *et al.* (2010) recommend that the status remain S1.

**II. Abundance and Distribution Trends**

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
North America	Yes	Unknown	Declining	2009		-
Northeastern US	Yes	Unknown	Unknown	2009		-
New York	Yes	Unknown	Unknown	2005-2009		Yes
Connecticut	No	-	-			-
Massachusetts	No	-	-			-
New Jersey	Yes	Unknown	Stable			-
Pennsylvania	Yes	Unknown	Unknown			-
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 (NYSDDS) was conducted from 2005-2009. Ten surveys were conducted in 2007, 2008, and 2009 along the Delaware River in the stretch where the species is known to occur (P. Novak, personal communication).

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

Short-term trends show a decline of 10-30%, while long term-trends are relatively stable to a decline of 50% (NatureServe 2012).

The trend in New York is not well understood. An absence of records since the mid-1990s is suggestive of a severe decline but few surveys have been conducted in June when adults are flying.

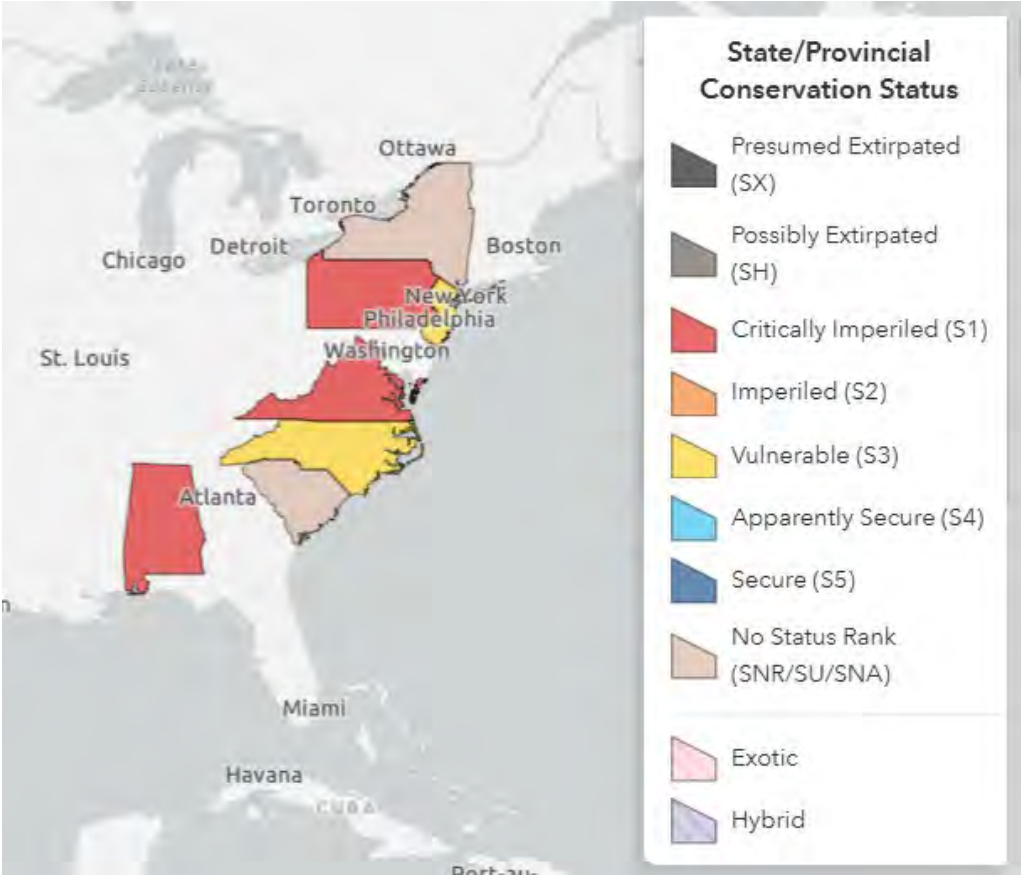
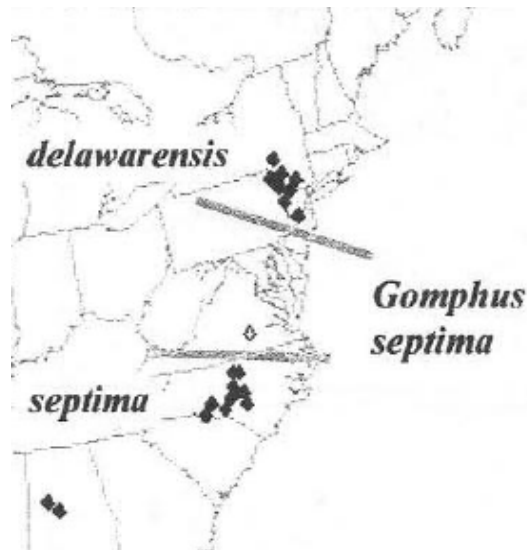
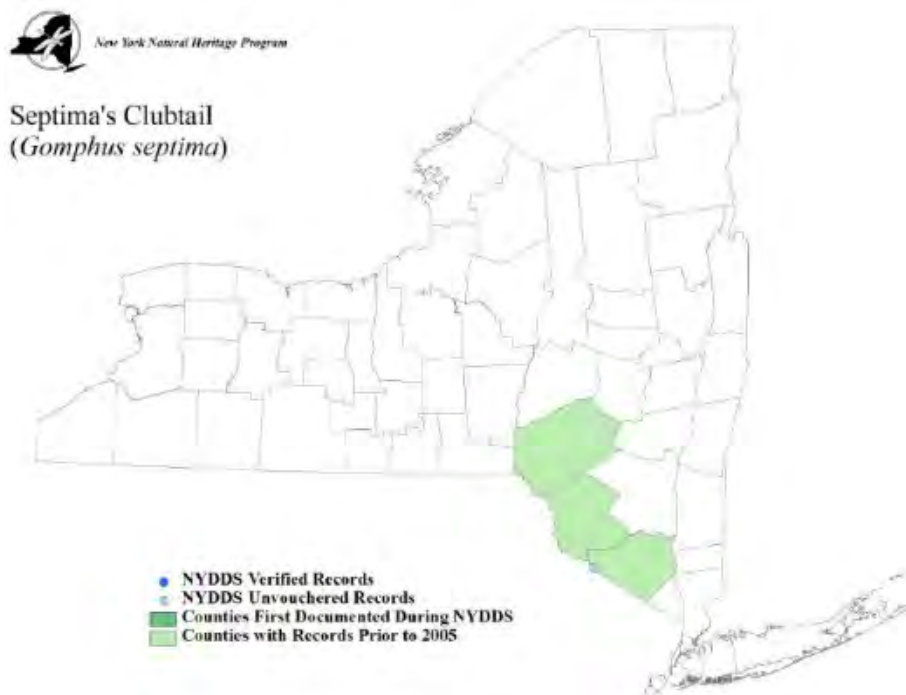


Figure 1. Conservation status of *Gomphurus septima* in North America (NatureServe 2025).



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

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



**Figure 3.** Distribution of Septima's clubtail in the NY (Donnelly 2004).

**Details of historic and current occurrence:**

This species was first documented in New York in 1993.

Septima's clubtail has been documented on the Delaware River in Port Jervis, Barryville, Minisink Ford, Tusten, Narrowsburg, Skinner's Falls, Cohecton, and Callicoon. Most specimens were found

in 1994 and 1995 along a 50-km strip between Barryville and Callicoon. There have been no records since the mid-1990s.

**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%	Disjunct	~70mi

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. Riverine, moderate river, rocky bottom
- b. Riverine, moderate river, sand and silt bottom

**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:**

*G. septima* occupies moderate to large wooded rivers with some current, usually rocky but with fine sand and silt for larval habitat (Paulson 2011).

**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 spend time perched on rocks and logs at breeding habitats. Both sexes feed in nearby clearings where they rest on the ground and flat on leaves. Some fly high into the treetops to copulate, while other pairs remain low over the grass. This species often leaves the water during the heat of the day. Mating has been observed as late as 14:00 and oviposition even later. Females have been observed extruding eggs while perched on a rock, and then flying over the water in wide loops, tapping three times in 4-minute intervals and then flying into the treetops (Paulson 2011).

Exuviae and adults have been collected along the upper Delaware from 24 May through 25 June. Over 2/3 of the records come during the first half of June (Soltesz 1995). Larvae have not been described. It is expected that they overwinter (NatureServe 2012).

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

Threats specific to this species have not been identified.

<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>
1. Residential and Commercial	1.1 Housing & Urban Areas	(habitat loss)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
3. Energy Production & Mining	3.1 Oil & Gas Drilling	(hydraulic fracturing)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
5. Biological Resource Use	5.3 Logging & Wood Harvesting	(siltation)	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	(alteration of natural hydrology)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
9. Pollution	9.1 Domestic & Urban Wastewater	(salt runoff from roads)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
9. Pollution	9.3 Agricultural & Forestry Effluents	9.3.3 Herbicides & pesticides (runoff, pesticides)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

**Table 1.** Threats to *Gomphurus septima*

**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 Program.

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

Management/conservation actions have not been identified for this species.

Research needs are to describe larvae, assess the status of the northern population, and develop a better understanding of the behavior and ecology of the species (NatureServe 2012). Further inventory along the 65 km stretch of the Delaware between Callicoon and Downsville, as well as along the west branch, north of Hancock and the Beaverkill (upstream of the confluence with the East Branch) is needed (White *et al.* 2010).

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 *Gomphurus septima*.

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for odonates of rivers and streams, and for Septima’s clubtail 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

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).

**Statewide baseline survey:**

\_\_\_\_\_ Most 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.

## VII. References

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