Species Status Assessment

Common Name: Skillet clubtail **Date Updated:** March 2025

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

Class:

Family:

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

The distribution center of *G. ventricosus* lies along the Lake Erie shoreline in northeast Ohio in the southern Great Lakes Forest ecoregion, extending northwest to northern Minnesota, east to Nova Scotia, and south to central Tennessee (Donnelly 2004). *G. ventricosus* is rare and spottily distributed throughout its range, particularly in the east (Walker 1958).

Although extensive searches during the New York State Dragonfly and Damselfly Survey (NYSDDS) failed to detect the species in eastern New York, recent records suggest that it should occur there. These records include occurrences from the Connecticut River in Massachusetts and Connecticut, as well as smaller rivers near the NY border, such as the Housatonic (Massachusetts NHESP 2003).

G. ventricosus was formerly known in New York State from two pre-1926 records— one from Pine Island, probably the upper Wallkill River (where the species still occurs in New Jersey), and another from Old Forge (likely on the Moose River). A 2009 survey of the Moose River was not successful in locating any individuals. However, a new population was documented in New York along the Raquette River between Potsdam and Massena on the northeast Lake Ontario/St. Lawrence Plain in both 1997 and 1998 (White *et al.* 2010).

Throughout its range, *G. ventricosus* prefers small to large turbid rivers with partial mud bottoms, but good water quality. An older locale in Pine Island of Orange County, presumably along the upper Wallkill River, was a slow-moving creek with a muddy/muck bottom and stained/turbid water. Grasses and woody shrubs grew along the banks. The newly discovered Raquette River population inhabits a rocky, deep river with clear water and a sand/gravel substrate (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:** G3

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:
White *et al.* (2010) calculated a revised draft S-rank of S1 from SH.

II. Abundance and Distribution Trends

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
North America	Yes	Declining	Declining			-
Northeastern US	Yes	Unknown	Declining			-
New York	Yes	Unknown	Unknown			Yes
Connecticut	Yes	Unknown	Declining		SC	Yes
Massachusetts	Yes	Declining	Declining		SC	Yes
New Jersey	No data	-	-			-
Pennsylvania	No data	-	-			-
Vermont	No data	-	-			-
Ontario	No	-	-	*historically present, presumed extirpated		-
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):*
None

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

No long-term trends have been identified, but short-term trends show a decline of 10-30% (NatureServe 2012).

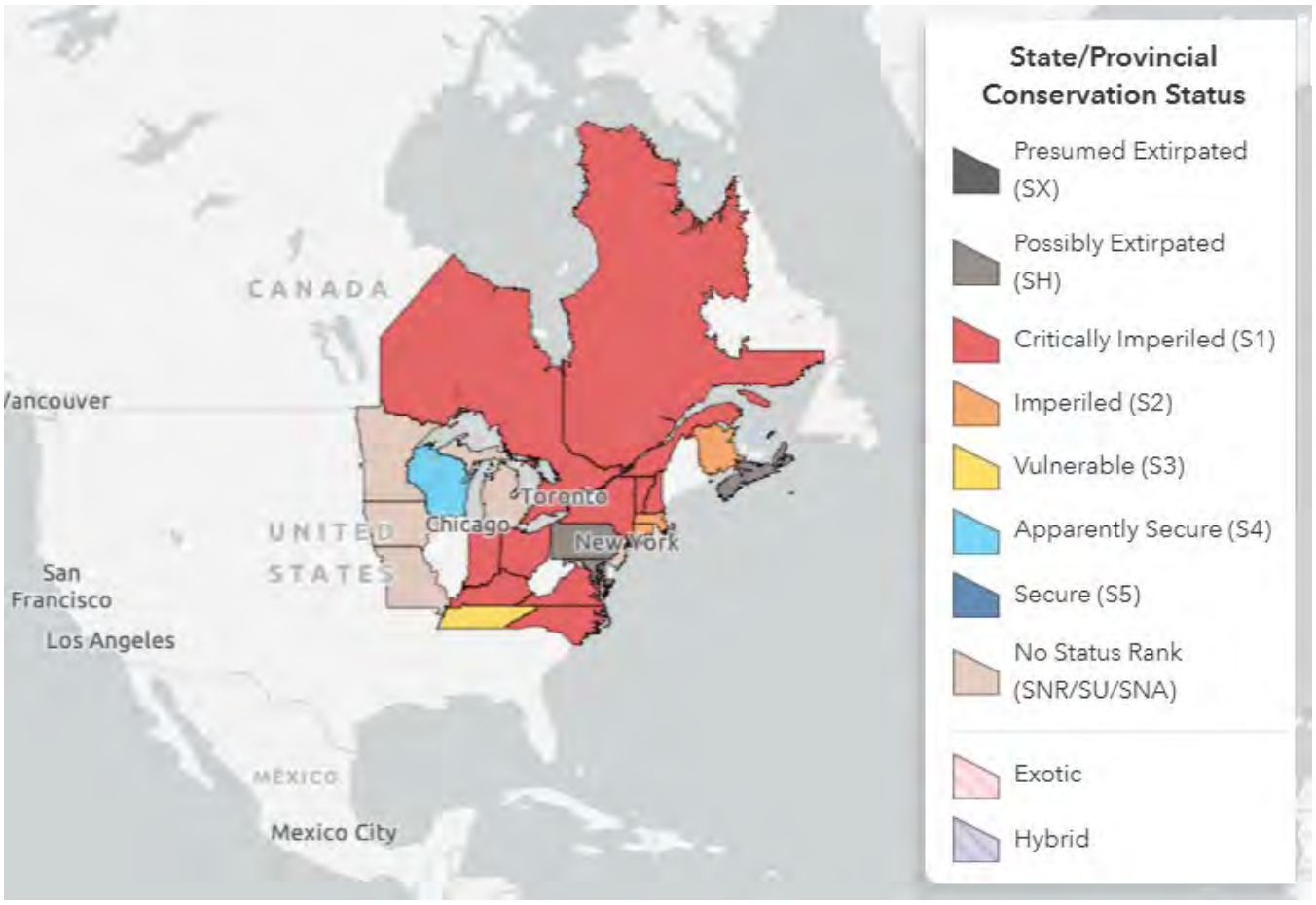

Figure 1. Conservation Status of *Gomphurus ventricosus* in North America

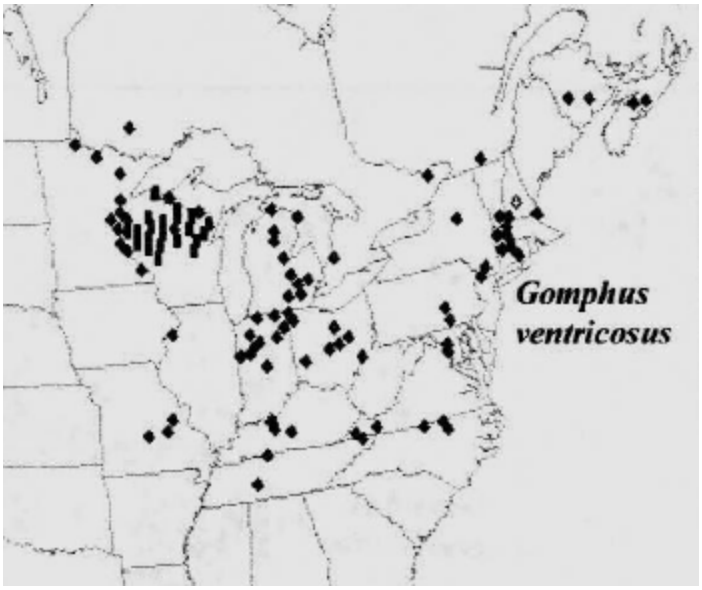

Figure 2. Distribution of skillet clubtail in the United States (Donnelly 2004).

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

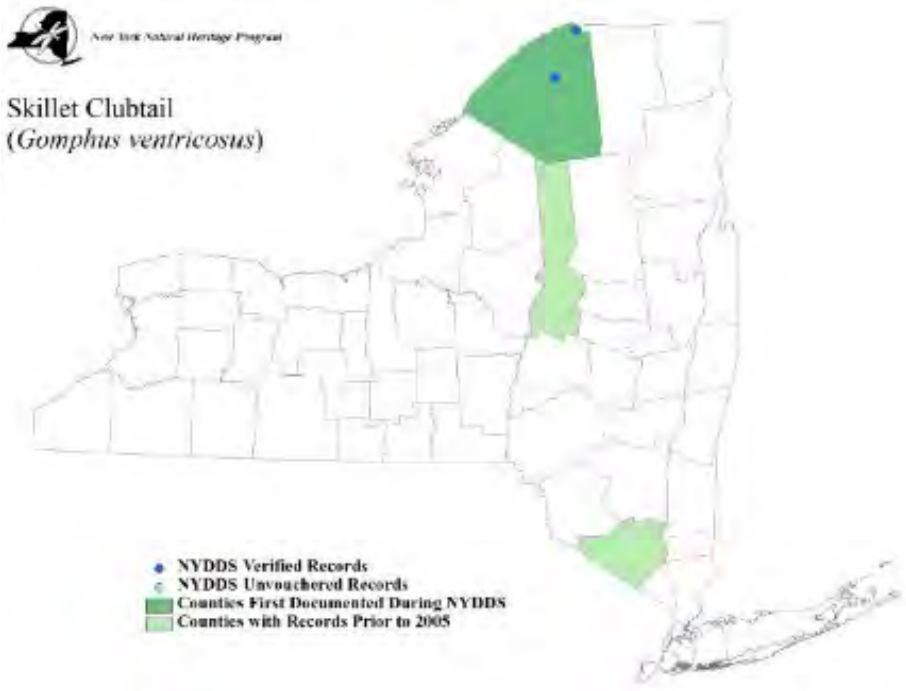

Figure 3. Occurrence records of skillet clubtail in New York (White *et al.* 2010).

Details of historic and current occurrence:

From New York Nature Explorer (2009): Herkimer County — 1926; Orange County — 1926.

St. Lawrence County — 1997

From The New York Dragonfly and Damselfly Survey 2005-2009. Number of occurrences obtained from map by White *et al.* 2010.

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%	Core	

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, coldwater stream, mud bottom

b. Riverine,w armwater stream, mud bottom

c. Riverine, deep, sand and gravel bottom

Habitat or Community Type Trend in New York

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

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:

Throughout its range, the species prefers small to large turbid rivers with partial mud bottoms, but good quality water. The newly documented Raquette River population occupies a rocky, deep river with clear water and a sand/gravel substrate (White *et al.* 2010).

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):*

Gomphus ventricosus is among the most poorly understood Odonate species in North America. Adults have been recorded from late May into mid-July. Although little is known about this species, it is likely similar to others in the genus. The nymphs are aquatic and spend a year or more maturing and undergoing several molts within that period. They burrow into the sandy bottoms of rivers and are voracious predators, feeding on a variety of aquatic life. During eclosion, nymphs crawl out onto exposed rocks, emergent vegetation, partially submerged logs, or the steeper sections of river banks, usually during the early morning (presumably to reduce exposure to predation). Teneral adults spend several days or more in the vegetation of adjacent uplands, feeding and maturing before returning to their breeding habitats. Clubtails feed on small insects captured in short trips from their perches (Massachusetts NHESP 2012).

Once mature, males return to the water. They often perch horizontally on the broad leaves of overhanging vegetation, and occasionally on exposed rocks. They sometimes hover over rapids, presumably in search of females. Females generally only return to water for a brief period to mate and lay eggs. The duration of mating in clubtails has not been recorded. Oviposition by female *G. ventricosus* also has not been reported, but in similar species involves flying low over the water and periodically striking the surface to wash off eggs. Development time for the eggs is also unknown (Massachusetts NHESP 2012).

Adults have been collected in northern New York between 8 June and 25 June. In other states, such as Massachusetts and Wisconsin, the species is observed from late May to mid July, with the peak in June (Massachusetts NHESP 2003, Wisconsin Odonata Survey 2009).

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

Threats include impoundments, channelization, dredging, siltation, agricultural non-point pollution, and municipal and industrial pollution. Timber harvest may increase erosion and silt and cause a decrease in dissolved oxygen as canopy cover is removed and water temperature rises. Extensive use of the river by power boats and jet skies is a serious concern, especially during emergence, when they are often low over the water surface or on exposed perches (NatureServe 2012).

Threat Level 1	Threat Level 2	Threat Level 3	Spatial Extent	Severity	Immediacy	Trend	Certainty
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.
7. Natural System Modifications	7.2 Dams & Water Management/Use	7.2.1 Water level management using dams (alteration of hydrology)	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.
9. Pollution	9.1 Domestic & Urban Wastewater	9.1.1 Domestic wastewater (poor water quality)	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)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Table 1. Threats to *Gomphurus ventricosus*

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:

Exact management needs of *G. ventricosus* are not known. As with most Odonates, water quality is critical (Massachusetts NHESP 2012). Tolerance to pollution and dissolved oxygen levels needs to be documented (NatureServe 2012).

Additional surveys are needed on the Moose River near Old Forge. Surveys should also be conducted on other large rivers draining the Adirondacks to the north including the Grass, Oswegatchie, St. Regis, and Chateaugay, which may hold populations in their lowlands (White *et. al* 2010).

Development of upland areas should be discouraged, as they are critical for feeding, resting, and maturation. Preservation of remaining underdeveloped upland should be a top priority (Massachusetts NHESP 2012).

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 ventricosus.*

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for odonates of rivers and streams, and for skillet 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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Originally prepared by	Jenny Murtaugh
Date first prepared	July 19, 2012
First revision	February 19, 2014 (Samantha Hoff)
Latest revision	