Species Status Assessment

Common Name: Common sanddragon **Date Updated:** March 2025

Scientific Name: *Progomphus obscurus* **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):*

The distributional center of *Progomphus obscurus* lies along the Ohio River in southern Illinois in the Central Hardwood Forest ecoregion. The species ranges widely across the eastern US, west to Colorado, northwest to northern Wisconsin, east to the Maine/New Hampshire border and south to Florida and Texas (Donnelly 2004c). New York is near the northeastern range extent and *P. obscurus* was known historically from Suffolk County Long Island and, more recently, from the upper Hudson and Schroon Rivers. One of the historical Long Island occurrences, as well as the Hudson River population, were re-confirmed - as extant during the New York State Dragonfly and Damselfly Survey (NYDDS) while the Schroon River population was last documented in 1996, but has not been well surveyed in recent years. An additional pond in Suffolk County was added during the NYDDS (White *et al.* 2010). Both lentic and lotic habitats are occupied in different parts of New York. On Long Island, this species is found in small, shallow, sand-bottomed ponds (kettleholes) with shoreline beaches and emergent vegetation. In the upper Hudson watershed, forested medium-sized clean rivers with sandbars, moderate flow, and few boulders are characteristic of preferred habitat (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:** S1 **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) suggests that the status remain S1(5 or fewer occurrences, or few remaining acres or miles of stream, or factors demonstrably making it especially vulnerable to extinction rangewide or in New York State).

II. Abundance and Distribution Trends

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
North America	Yes	Unknown	Unknown	US: 1995 CA: 2012		-
Northeastern US	Yes	Unknown	Stable	1995		-
New York	Yes	Unknown	Stable	Long-term		Yes
Connecticut	Yes	Unknown	Unknown		SC	Yes
Massachusetts	Yes	Unknown	Unknown			Choose
New Jersey	No data	-	-			-
Pennsylvania	No data	-	-			-
Vermont	No	-	-			-
Ontario	No data	-	-			-
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):*

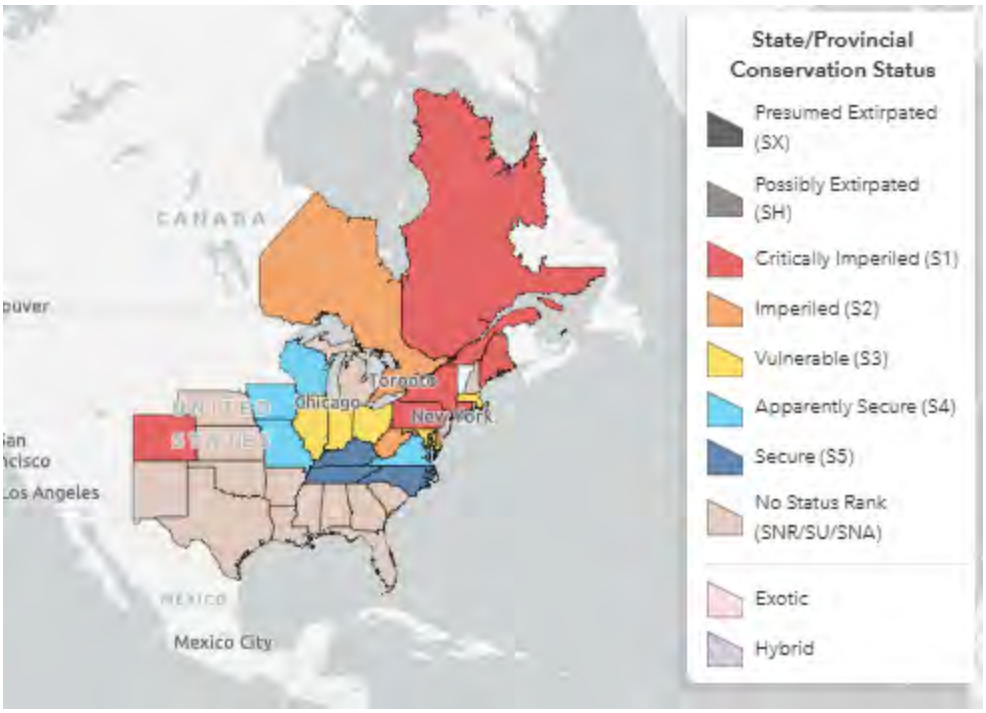

Figure 1. Conservation status of *Progomphus obscurus* in North America (NatureServe 2025).

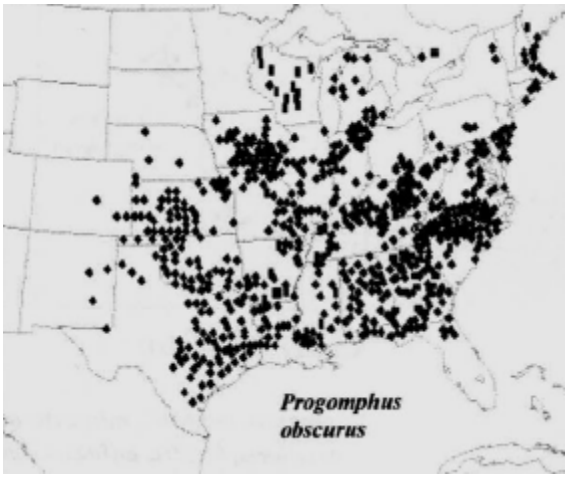

Figure 2. Distribution of common sanddragon in the United States (Donnelly 2004).

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

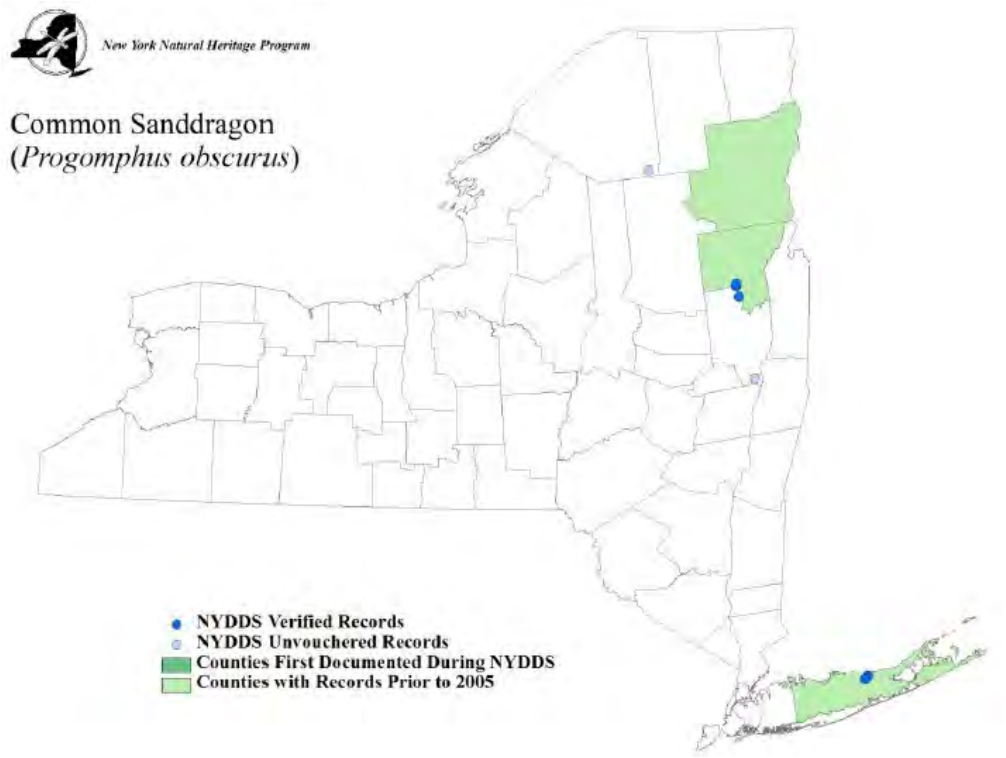

Figure 3. Occurrence records of common sanddragon in New York (White *et al.* 2010).

Details of historic and current occurrence:

Two pre- 1928 locations were documented by Needham, both in Suffolk County, including Wading River and Deep Pond (Needham 1928, Donnelly 1992).

Counting the Schroon River population which was last verified in 1996, *Progomphus* is known from four occurrences or populations in New York State including the upper Hudson River in the vicinity of Lake Luzerne, the Schroon River, north of Schroon Lake and Deep Pond and Tarkill Pond in Suffolk County on Long Island.

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 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. Coastal Plain Pond

b. Small River, Low-Moderate Gradient, Sandy substrate

c. Medium River, Low-Moderate Gradient, Sandy substrate

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:

True to their name, sanddragon larvae are burrowers (< 2 cm deep) found primarily in shifting sandbars in small streams and the sandy shallows of wide lakes. The nymphs show a preference for sand particle sizes from 0.625-1.0 mm (Huggins and DuBois 1982) and they emerge on sandy beaches (Phillips 2001). At breeding sites, males perch on sandy ground or in vegetation and hover very low over the water (Nikula *et al.* 2003). Both lentic and lotic habitats are occupied in different parts of New York. On Long Island, this species is found in small, shallow, sand-bottomed ponds (kettleholes) with shoreline beaches and emergent vegetation. In the upper Hudson watershed, forested medium-sized clean rivers with sandbars, moderate flow, and few boulders are the preferred habitat (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):*

Larvae that have been collected on the upper Hudson on 22 May, emerged around 9 or 12 June, which may be earlier than can be expected in the wild. Adults on Long Island are mostly observed during July, with one record pre-NYDDS observed on 29 July. Thus, the entire flight season in New York is about two months long from June to the end of July, possibly ending significantly sooner than in other northern states (The Ohio Odonata Society 2000; Brunelle and deMaynadier 2005; Wisconsin Odonata Survey 2009) where the species can often be observed throughout August.

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

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.
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	9.1.1 Domestic wastewater (poor water quality)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Table 1. Threats to *Progomphus obscurus*

Little published information is available citing specific cases of negative impacts to the various species of river dwelling odonates, but any activities which degrade the sensitive hydrology of these habitats would threaten populations of these species. The most important likely negative impacts would come from changes in the natural hydrology such as the building of dams, increases in the sediment load of the river (such as might result should logging occur down to the river edge), changes in dissolved oxygen content, direct effects of pesticides, and chemical contamination by runoff of agricultural or other discharge (Novak 2006).

Generally, Coastal Plain Ponds on Long Island are threatened by the introduction of grass carp, alterations to hydrology and water quality, as well as herbicides used to clear aquatic weeds from ponds. The most significant threat to their hydrology comes from commercial and residential development causing increases in the demand for fresh water. This causes drawdowns of the water table, altered hydroperiods and a general diminishment of the pond extent (NYNHP 2011). The expansion of *Phragmites* and decline of water quality due to increased recreation during the dragonfly flight season are possible threats at the two inhabited Coastal Plain Ponds. It is unclear what threats may be a concern at the Hudson/Schroon River locales. In general, lotic habitats for this sand-dependent species could be altered by dams which change the sedimentation dyamics of flowing waters (NYNHP 2011).

The common sanddragon was classified as “not vulnerable/increase likely” (IL) to predicted climate change in an assessment of vulnerability conducted by the New York Natural Heritage Program. Available evidence does not suggest that abundance and/or range extent within the geographical area assessed with change (increase/decrease) substantially by 2050. Actual range boundaries may 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 Tidal Wetlands Act provides protection for all tidal wetlands under Article 25 of the NYS Conservation Law.

Article 15 of Environmental Conservation Law provides some protection of rivers, streams, lakes and ponds through the Protection of Waters permit program. However, this protection may not be 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:

The most important management concern for Coastal Plain Ponds is the maintenance of a natural hydrologic regime and good water quality. Water supplies for new development and ditching, draining or impoundment activities should be weighed carefully. Storm water run-off, herbicide and pesticide use should also be minimized or eliminated in the vicinity of ponds. Where practical, wide (> 100') vegetated buffers should be managed to reduce storm-water, pollution, sediment and nutrient run-off. Habitat alteration within the wetland and surrounding landscape should be minimized (NYNHP 2011).

Complete Conservation Actions table using IUCN conservation actions taxonomy at link below. Use headings 1-6 for Action Category (e.g., Land/Water Protection) and associated subcategories for Action (e.g., Site/Area Protection) - https://www.iucnredlist.org/resources/conservation-actions-classification-scheme

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 *Progomphus obscurus*

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for odonates of rivers and streams, and for common sanddragon 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

Brunelle, P.-M. and P. G. deMaynadier. 2005. The Maine damselfly and dragonfly survey. A final report. A report prepared for Maine Department of Inland Fisheries and Wildlife (MDIFW).

Donnelly, T. W. 1999. The dragonflies and damselflies of New York. Prepared for the 1999

International Congress of Odonatology and 1st Symposium of the Worldwide Dragonfly Association., Colgate University, Hamilton, NY.

Donnelly, T. W. 2004c. Distribution of North American Odonata. Part I: Aeshnidae, Petaluridae, Gomphidae, Cordulegastridae. Bulletin of American Odonatology 7:61-90.

Huggins, D. G. and M. B. DuBois. 1982. Factors affecting microdistribution of two species of burrowing dragonfly larvae, with notes on their biology (Anisoptera: Gomphidae). Odonatologica. 11:1-14.

NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <http://www.natureserve.org/explorer>. Accessed 24 September 2012.

Needham, J.G., 1928. A list of the insects of New York.Order Odonata. Memoir 101, Cornell Univ. Agr. Exp. Stat., 45-56.

New York State Department of Environmental Conservation. (2006). *New York State Comprehensive Wildlife Conservation Strategy*. Albany, NY: New York State Department of Environmental Conservation.

New York Natural Heritage Program. 2011. Online Conservation Guide for *Progomphus obscurus*. <http://www.acris.nynhp.org/guide.php?id=8208>. Accessed 24 September 2012.

New York Natural Heritage Program. 2012. Element Occurrence Database. Albany, NY.

Nikula, B., J. L. Loose, and M. R. Burne. 2003. A field guide to the dragonflies and damselflies of Massachusetts. Massachusetts NHESP, Westborough, MA. 197 pp.

Novak, P. 2006. Species Group Report for Odonates of bogs/fens/ponds (pp. 25-30 of Appendix A5, Species Group Reports for Insects. In *New York State Comprehensive Wildlife Conservation Strategy*. Albany, NY: New York State Department of Environmental Conservation.

Phillips, E. C. 2001. Life history, food habits and production of *Progomphus obscurus Rambur* in Harmon Creek of East Texas. Texas Journal of Science 53:19-28.

Schlesinger, M.D., J.D. Corser, K.A. Perkins, and E.L. White. 2011. Vulnerability of at-risk species to predict climate change in New York. New York Natural Heritage Program, Albany, NY.

The Ohio Odonata Society. 2000. Ohio odonata survey species distribution maps, *Argia bipunctulata*, *Calopteryx angustipennis*, *Gomphus vastus, Gomphus abbreviatus, Progomphus obscurus, Stylurus spiniceps, Somatochlora linearis, Gomphaeschna antilope, Cordulegaster erronea, Cordulegaster obliqua,* and *Gomphus viridifrons*. Marietta College Biology Department, Marietta, OH. <http://www.marietta.edu/~odonata/species/odolist.html>. Accessed 24 September 2012.

White, E. L., J. D. Corser, and M. D. Schlesinger. 2010. The New York dragonfly and damselfly survey 2005-2009: Distribution and status of the odonates of New York. New York Natural Heritage Program, Albany, New York.

Wisconsin Odonata Survey. 2009. Wisconsin dragonflies and damselflies, species accounts, *Coenagrion interrogatum*, *Somatochlora incurvata, Stylurus notatus, Stylurus scudderi, Gomphus viridifrons, Gomphus ventricosus, Progomphus obscurus, Gomphus vastus, Sympetrum danae, Cordulegaster obliqua,* and *Williamsonia fletcheri*. Wisconsin Aquatic

and Terrestrial Resources Inventory, Wisconsin Department of Natural Resources, and the Beaver Creek Reserve, Wisconsin. <http://wiatri.net/inventory/odonata/SpeciesList.cfm>. Accessed 24 September 2012.

Murtaugh, Jenny. 2012. *Progomphus obscurus* Status Assessment for the 2015 New York State Wildlife Action Plan. NYSDEC. Albany, New York.

NatureServe. 2025. NatureServe Explorer. Page last published 2/28/25. https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.120636/Progomphus_obscurus. Accessed April 1, 2025.

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