

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
Connecticut	No	-	-			-
Massachusetts	No	-	-			-
New Jersey	No	-	-			-
Pennsylvania	No	-	-			-
Vermont	No	-	-			-
Ontario	Yes	Unknown	Unknown	Unknown	Not listed, S4	-
Quebec	Yes	Unknown	Unknown	Unknown	Not listed, SNR	-

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*):

There are no known monitoring activities or regular surveys for this species.

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

Trends for oblique dart are unknown but is likely stable. It is known from one site in northern New York which is on protected land.

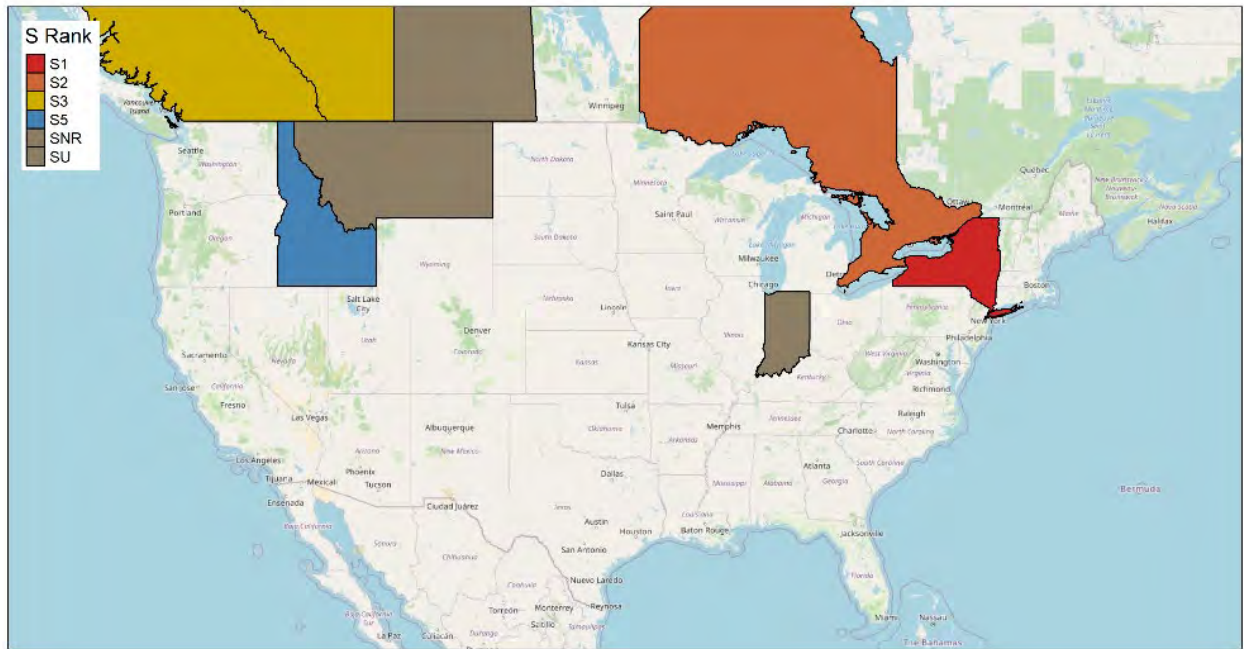


Figure 1. *Agrotis obliqua* distribution and status (Distribution may not be complete. NatureServe 2023)

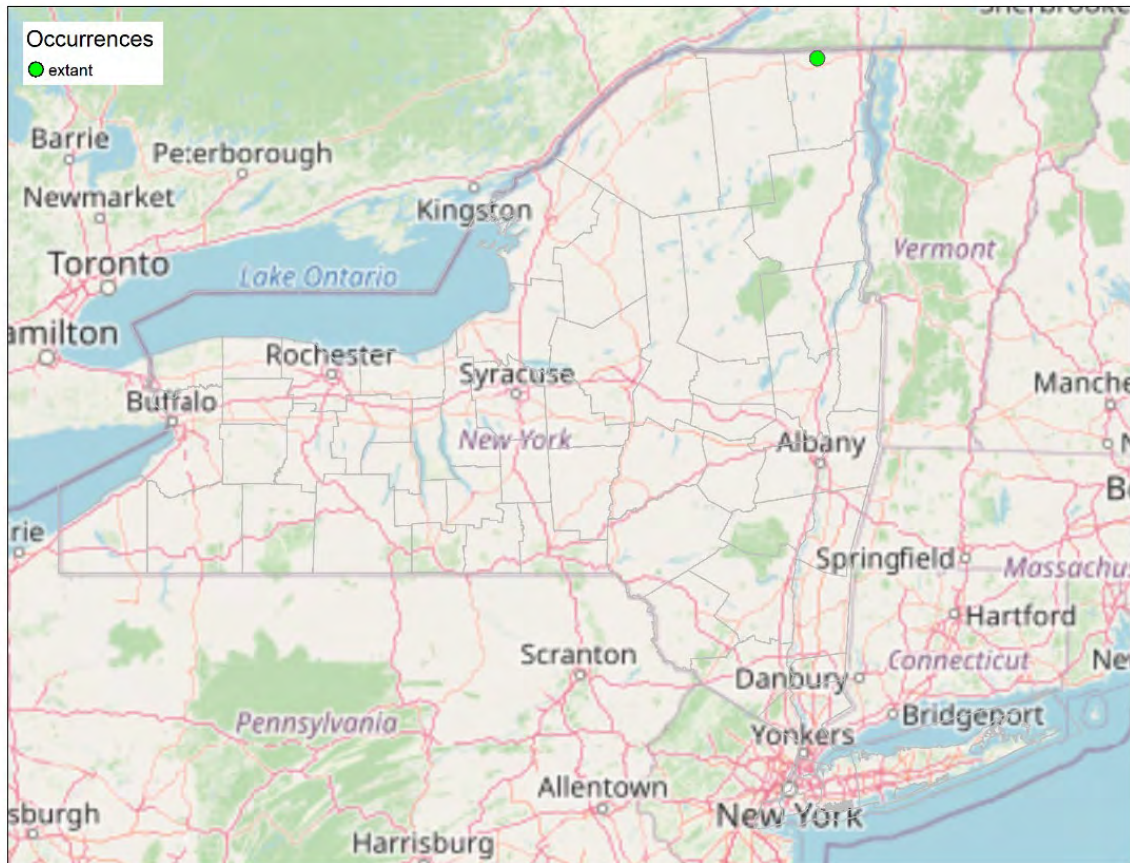


Figure 2. *Agrotis obliqua* distribution (New York Natural Heritage Program (NYNHP) 2023)

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

Years	# of Records	# of Counties	% of State
Pre-2000	1	1	<1
2000- 2023	1	1	<1

Table 1. Records of *Agrotis obliqua* in New York.

Details of historic and current occurrence:

There are no known records prior to 1991 in New York (NYNHP 2023). This species was recorded in Gadway Sandstone Pavement Barrens Preserve, Clinton County, in 1991, 1995 and 2003 in an area with abundant jack pine (NYNHP 2023). This species does not occur in the Albany Pine Bush, as some have suggested; *A. stigmosa* occurs there.

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	4500 km

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. Rocky Outcrop
2. Mixed Northern Hardwoods

Habitat or Community Type Trend in New York

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

Column options

Habitat Specialist, Indicator Species and Pollinator Species: Yes; No; Unknown; (blank) or Choose an item

Habitat/Community Trend: Declining; Stable; Increasing; Unknown; (blank) or Choose an item

Habitat Discussion:

Agrotis obliqua are typically found in boreal habitats. In the mountains of Canada and western United States, they are found in boreal spruce-fir or quaking aspen forests (Pacific Northwest Moths 2023). In New York, this species has been found in sandstone pavement barrens, dominated by jack pine (*Pinus banksiana*) and sparsely scattered with various ericaceous shrubs, mosses, lichens and ferns (NYNHP 2023).

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):*

Little is known about the biology of oblique dart. Larval foodplants are unknown. Adults were found in New York from late May to mid-June (NYNHP 2023). In the Pacific Northwest, adults are found from May to August with peaks in July and August (Pacific Northwest Moths 2023).

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

Threats specific to this species have not been identified in the literature and the only known population in New York is on protected land. General threats identified to affect moth species include habitat loss and degradation caused by development; habitat fragmentation; alteration of natural fire regimes; natural succession of shrubland, woodland, and barrens habitats; and land clearing. Past use of chemical biocides to control spongy moth and other pest insects continues to kill native Lepidoptera (Schweitzer 2004). Introduced parasitoid flies have been known to negatively affect native Lepidoptera (Boettner et al. 2000). Other threats may include invasive species, light pollution affecting reproductive success, over grazing of host plants by wild deer populations, and off-road vehicle use (NYSDEC 2005).

Threat Level 1	Threat Level 2	Threat Level 3	Spatial Extent	Severity	Immediacy	Trend	Certainty
7. Natural System Modifications	7.1 Fire & Fire Suppression	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
7. Natural System Modifications	7.3 Other Ecosystem Modifications	7.3.2 Vegetation succession	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
8. Invasive & Other Problematic Species	8.2 Problematic Native Plants & Animals	8.2.2 Increased grazing by vertebrates	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
11. Climate Change	11.1 Habitat Shifting & Alteration	Choose an item. (at southern limit of range)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Table 2. Threats to *Agrotis obliqua*.

Are there regulatory mechanisms that protect the species or its habitat in New York?

Yes: ü No: _____ Unknown: _____

If yes, describe mechanism and whether adequate to protect species/habitat:

The only known populations is on protected land.

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

The specimens recorded in New York were within the Gadway Sandstone Pavement Barrens Preserve, which is owned by The Nature Conservancy (NYNHP 2023) and is thus protected from development.

Action Category	Action	Description
A.1 Direct Habitat Management	A.1.0.0.0 Direct Habitat Management	Site Management
A.2 Direct Species Management	A.2.0.0.0 Direct Species Management	Invasive/problematic species control
B.3 Outreach	B.3.0.0.0 Outreach	Awareness and Communications
C.6 Design and Plan Conservation	C.6.0.0.0 Design and Plan Conservation	Site/Area Protection
C.6 Design and Plan Conservation	C.6.0.0.0 Design and Plan Conservation	Resource/Habitat Protection
C.7 Legislative and Regulatory Framework or Tools	C.7.0.0.0 Legislative and Regulatory Framework or Tools	Policies and Regulations

Table 3. Recommended conservation actions for *Agrotis obliqua*.

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

Easement acquisition:

_____ Where appropriate, acquire easements to promote moth protection and conservation.

Fact sheet:

_____ Create fact sheets covering moths.

Habitat management:

_____ Determine best management regime for moth species, including fire and other forms of management.

Habitat monitoring:

_____ Develop standardized measures of habitat parameters for each species of listed moth.

_____ Investigate threats to food and host plants.

_____ Monitor land development projects.

Habitat research:

_____ Examine role of light pollution as threat to moths.

_____ Determine host/ food plant.

Life history research:

_____ Investigate the metapopulation dynamics of those species which warrant it.

_____ Examine role of introduced parasites and predators in threats to moths.

Other action:

_____ Develop standard definition of what is needed for "viable" populations of moths.

_____ Research the role of pesticide use in threats to moths.

Population monitoring:

_____ Inventory of species within historical range.

_____ Develop standardized survey protocols for moths.

Private fee acquisition:

_____ Where appropriate, encourage/assist private entities to acquire land for moth protection and conservation.

State fee acquisition:

_____ Where appropriate, acquire land essential to moth protection and conservation.

State land unit management plan:

_____ Incorporate needs of moths into state land management plans.

VII. References

Boettner, G.H., J.S. Elkington, and C.J. Boettner. 2000. Impacts of an introduced generalist parasitoid on three native species of saturniid moths. *Conservation Biology* 14: 1798–1806.

Ferdinand, Shawn. 2013. SWAP 2015 Species Status Assessment for *Agrotis obliqua*. Prepared on February 27, 2013. Revised by Samantha Hoff on February 4, 2014.

Lafontaine, J. D., 2004. Moths of America North of Mexico, Fascicle 27.1: p. 245.

Lafontaine, D. 2013. Email on the status of *Agrotis obliqua* in New York. Personal communication.

McCabe, Timothy L. 2004. Insect biodiversity of a jack pine barrens. A report prepared for the Biodiversity Research Institute, New York State Museum, Albany, NY.

NatureServe. 2023. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <<http://www.natureserve.org/explorer>>. Accessed 14 December 2023.

New York Natural Heritage Program. 2023. Element Occurrence Database. State University of New York College of Environmental Science and Forestry, Albany, NY. Accessed on December 14, 2023.

New York State Department of Environmental Conservation. 2005. New York State Comprehensive Wildlife Conservation Strategy. <http://www.dec.ny.gov/index.html>.

North American Moth Photographers Group. 2012. Mississippi Entomological Museum at Mississippi State University. <<http://mothphotographersgroup.msstate.edu>>. Accessed 27 February 2013.

Pacific Northwest Moths. 2023. Species fact sheet for *Agrotis obliqua*. <<http://pnwmoths.biol.wvu.edu/browse/family-noctuidae/subfamily-noctuinae/tribe-noctuini/agrotis/agrotis-obliqua/>>. Accessed 19 December 2023.

Schweitzer, D.F. 2004. Gypsy Moth (*Lymantria dispar*): Impacts and Options for Biodiversity-Oriented Land Managers. NatureServe: Arlington, Virginia. 59 pp.

Schweitzer, D.F., and T.L. McCabe. 2004. The taxonomy, larva and ecology of *Agrotis buchholzi* (Noctuidae) with a new sibling species from North Carolina. Journal of Lepidopterists' Society 58:65-74.

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