Species Status Assessment

Common Name: A Geometrid Moth **Date:** 2/18/2025

Scientific Name: *Tacparia zalissaria* **By:** Hollie Shaw

Class: Insecta

Family: Geometridae

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

Tacparia zalissaria is similar to other Geometrid moths. However, there is some distinct colorations that makes it identifiable in hand or by a photograph. There are two color forms: gray and brown (Hall et al. 2025).

The range extends from coastal areas of southeastern United States from Texas to Florida and north to New York (NatureServe 2025).

Trends are currently unknown in New York. The state is the northern edge of the range for this species and there are few records from coastal areas of Staten Island to Long Island (iNaturalist 2025). It is not commonly found on Long Island, but that may be because the adults have a short and early flight season and is found in a habitat (sandy/dunes) not frequented by lepidopteran photographers. Populations may be stable, but it is not widely distributed (H. McGuinness, personal communication, January 7, 2025).

In North Carolina, it has been found in tidewater habitats where *Morella cerifera* (common wax myrtle) occurs. It is possible that *Morella* spp. are the food plants (Hall et al. 2025). It has been found in New York in coastal areas with sandy habitats. Morella sp. also occurs in these habitats (H. McGuinness, personal communication, January 7, 2025). In New York, *Morella caroliniensis* occurs in coastal and upland habitats (Werier et al. 2025). Coastal habitats include brackish meadows, Maritime dunes, and Maritime interdunal swales (Edinger 2014).

I. Status

a. Current legal protected Status

i. **Federal:** not protected **Candidate:** no

ii. **New York:** not protected

b. Natural Heritage Program

i. **Global:** G4

ii. **New York:** N/A **Tracked by NYNHP?:** not ranked

Other Ranks:

-NYS 2025 SGCN Status: Species of Greatest Conservation Need
-IUCN Red List: Not listed
-Northeast Regional SGCN: Not listed

Status Discussion:
The New York Natural Heritage Program (2025b) has not ranked this species. It is a coastal species that is considered uncommon with a limited range in the state.

II. Abundance and Distribution Trends

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
North America	Yes	-	-			-
Northeastern US	Yes	-	-			-
New York	Yes	Unknown	Unknown			Yes
Connecticut	-	-	-			-
Massachusetts	-	-	-			-
New Jersey	-	-	-			-
Pennsylvania	-	-	-			-
Vermont	-	-	-			-
Ontario	-	-	-			-
Quebec	-	-	-			-

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 is no known monitoring or survey efforts other than occasional targeted Natural Heritage Program field surveys.

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

Trends are currently unknown in New York. The state is at the northern edge of this species range and there are few records from coastal areas of New York from parts of New York City to Long Island (iNaturalist 2025). It is not commonly found on Long Island, but that may be because the adults have a short and early flight season and is found in a habitat (sandy/dunes) not frequented by lepidopterean photographers. Populations may be stable, but it is not widely distributed (H. McGuinness, personal communication, January 7, 2025).

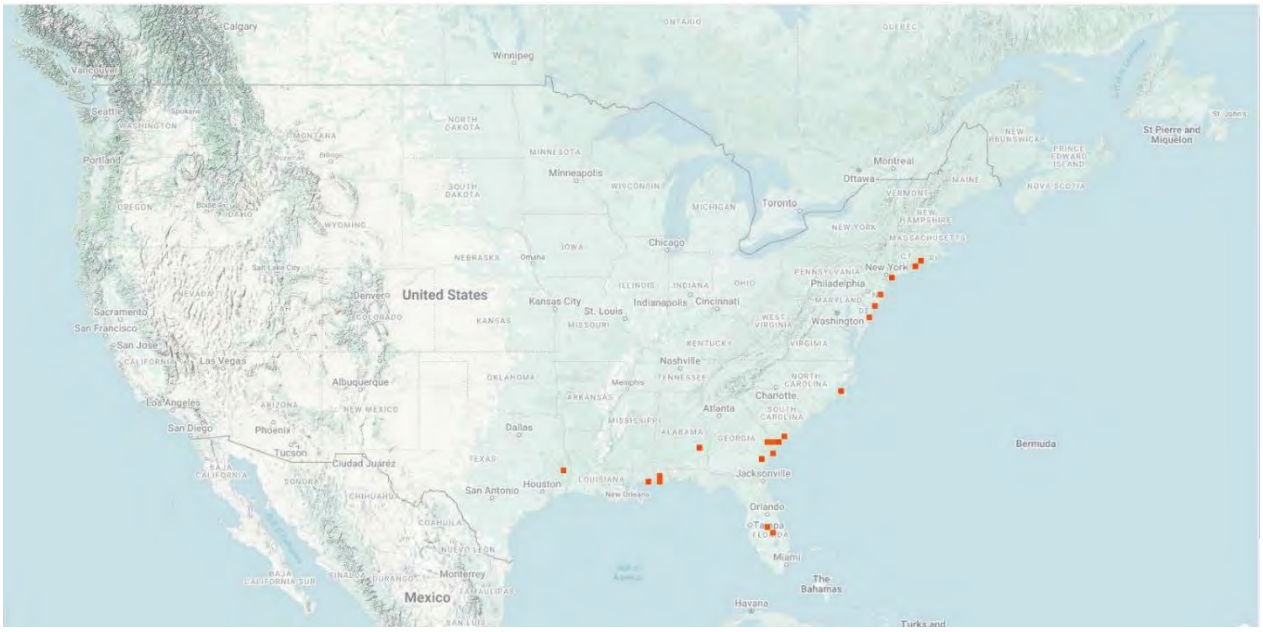

Figure 1. *Tacparia zalissaria* North America distribution. Points show research-grade iNaturalist observations (iNaturalist 2025).

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

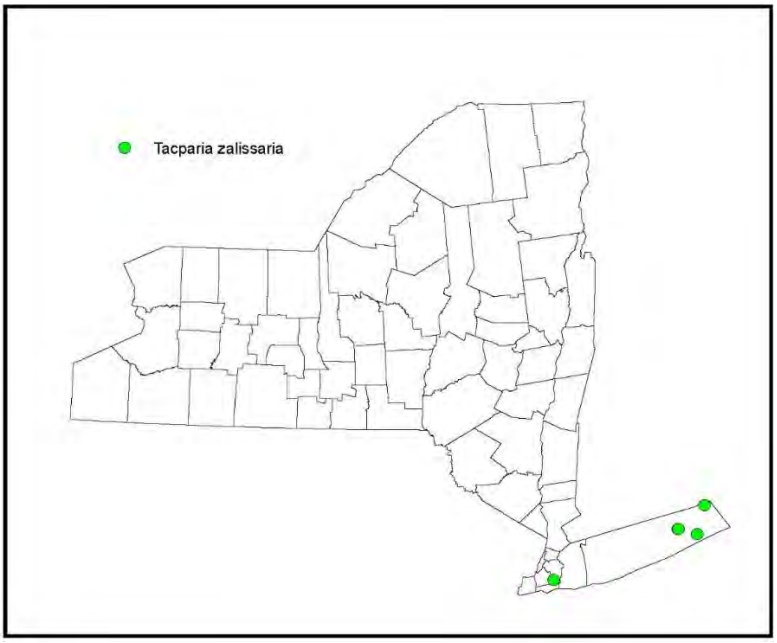

Figure 2. *Tacparia zalissaria* New York distribution. Points show research-grade iNaturalist observations (iNaturalist 2025).

Years	# of Records	# of Counties	% of counties in State
Pre-2000	0	0	0
2000-2024	5	2	<1%

Table 1. Records of *Tacparia zalissaria* in New York.

Details of historic and current occurrence:

There are no known historical locations. The first records in iNaturalist (2025) were reported in 2007 and 2008 from Queens and Suffolk counties. Reports have been sporadic with the last observations in 2022 (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	

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):*

Ecological communities with the assumed food plant (*Morella* spp.) include brackish meadows, maritime freshwater interdunal swales, and sea level fen (Edinger 2014).

Habitat or Community Type Trend in New York

Habitat Specialist?	Indicator Species?	Pollinator Species?	Habitat/ Community Trend	Time frame of Decline/Increase
Yes	Unknown	Unknown	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:

In North Carolina, it has been found in tidewater habitats where *Morella cerifera* (common wax myrtle) occurs. It is possible that *Morella* spp. are the food plants (Hall et al. 2025). It has been found in New York in coastal areas with sandy habitats. *Morella* spp. also occurs in these habitats (H. McGuinness, personal communication, January 7, 2025). In New York, sandy habitats with *Morella caroliniensis* occurs in coastal and upland habitats (Werier et al. 2025). Coastal habitats with *Morella* spp. include brackish meadows, Maritime dunes, and Maritime interdunal swales (Edinger 2014).

V. Species Demographic, and Life History:

Breeder in NY?	Non-breeder in NY?	Migratory Only?	Summer Resident?	Winter Resident?	Anadromous/ Catadromous?
Yes	(blank)	No	Yes	Yes	(blank)

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 *T. zalissaria* life history. Adults have a short flight season in May and June. It is assumed that the food plant is *Morella* spp. (H. McGuinness, personal communication, January 7, 2025). Hall et al. (2025) stated that alder spp. was reported as the food plant, but that is unlikely.

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	(development)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
8. Invasive & Other Problematic Species	-	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
9. Pollution	-	(water contamination)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
11. Climate Change	11.1 Habitat Shifting & Alteration	(sea level rise)	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Table 2. Threats to *Tacparia zalissaria.*

This species occurs in coastal areas. Many of these habitats are threatened by development, invasive species, climate change (e.g., sea level rise), and water contamination and manipulation (New York Natural Heritage Program 2025a).

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:

Wetland regulations may protect some locations.

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

Research and field surveys are needed to gain a better understanding of this species biology and range in New York. Little is known about this species life cycle and habitat requirements other than it tends to occur in sandy habitats is coastal areas.

The best management for coastal natural communities is to maintain a large beach, dune, and salt marsh complex and allow the dynamic ecological processes to occur. Avoid disturbances to these habitats. If disturbances cannot be avoided, then boardwalks or bridges are better options than filling in the habitat. A suite of native species is more resilient to extreme weather events. Take measures to reduce invasive species that are present at sites and plant native species. Reduce water contamination and water level manipulation (New York Natural Heritage Program 2025a).

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
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

Action Category	Action	Description
C.6 Design and Plan Conservation	C.6.5.1.3 Develop a conservation, management, or restoration plan for protected private lands	Habitat/Natural process restoration
C.7 Legislative and Regulatory Framework or Tools	C.7.0.0.0 Legislative and Regulatory Framework or Tools	Policies and Regulations
C.9 Education and Training	C.9.0.0.0 Education and training	Training

Table 3. Recommended conservation actions for (*Tacparia zalissaria*).

VII. References

Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

Hall, S.P.; Sullivan, J.B.; Petranka, J.W.; Feldman, T.; George, D.; Niznik, J.; Backstrom, P.; and Howard, T. 2025. *The Moths of North Carolina* [Internet]. Raleigh (NC): North Carolina Biodiversity Project and North Carolina State Parks. Available from https://auth1.dpr.ncparks.gov/moths/index.php. Accessed on February 14, 2025.

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New York Natural Heritage Program. 2025a. Online Conservation Guide for *Brackish meadow*. Available from: https://guides.nynhp.org/brackish-meadow/. Accessed February 14, 2025.

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Werier, David, Kyle Webster, Troy Weldy, Andrew Nelson, Richard Mitchell†, and Robert Ingalls†. 2025 **New York Flora Atlas**. [S. M. Landry and K. N. Campbell (original application development), **USF Water Institute**. **University of South Florida**]. **New York Flora Association**, Albany, New York.

Originally prepared by	Hollie Shaw
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