

Species Status Assessment

Class: Insecta
Family: Hesperidae
Scientific Name: *Atrytone arogos arogos*
Common Name: Eastern arogos skipper

Species synopsis:

This species is a small “grass skipper” with a very discontinuous range (NatureServe 2012). It was historically found in prairies and grasslands along the East Coast from Staten Island, New York southward to Florida and westward to Louisiana (Schlicht 2001, NatureServe 2012). Its specific habitat varies with location but in New York it was found in xeric sandy grassy patches where little bluestem was the dominant grass (NatureServe 2012). Listed as endangered in New York, and considered extirpated, this species has only been found in one location in 1985 and has not been reported since (NYSDEC 2009).

Hugh McGuinness has been searching two years with no records and it has been recommended that the species be considered extirpated (NYSDEC SGCN Expert Meeting, November 2013).

I. Status

a. Current and Legal Protected Status

- i. **Federal** Not listed **Candidate?** No
- ii. **New York** Endangered; SGCN

b. Natural Heritage Program Rank

- i. **Global** G3T1T2 (Critically Imperiled)
- ii. **New York** SH (extirpated) **Tracked by NYNHP?** Yes

Other Rank:

None

Status Discussion:

This species is extirpated throughout most of its range (NatureServe 2013). Its current stronghold is in New Jersey, where it is listed as endangered (Shepherd 2005, NJDFW 2008).

II. Abundance and Distribution Trends

a. North America

i. Abundance

X declining ___ increasing ___ stable ___ unknown

ii. Distribution:

X declining ___ increasing ___ stable ___ unknown

Time frame considered: Past 30 years (NatureServe 2012)

Severe decline

b. Regional

i. Abundance

X declining ___ increasing ___ stable ___ unknown

ii. Distribution:

X declining ___ increasing ___ stable ___ unknown

Regional Unit Considered: Northeast

Time Frame Considered: Past 40 years (NatureServe 2012)

Severe decline

c. Adjacent States and Provinces

CONNECTICUT Not Present X No data _____
MASSACHUSETTS Not Present X No data _____
QUEBEC Not Present X No data _____
VERMONT Not Present X No data _____
ONTARIO Not Present X No data _____

NEW JERSEY Not Present _____ No data _____

i. Abundance

 X declining ___ increasing ___ stable ___ unknown

ii. Distribution:

 X declining ___ increasing ___ stable ___ unknown

Time frame considered: Past 30 years (NatureServe 2012)

Listing Status: Endangered SGCN? Yes

Moderate decline

PENNSYLVANIA Not Present X No data _____

i. Abundance

___ declining ___ increasing ___ stable ___ unknown

ii. Distribution:

___ declining ___ increasing ___ stable ___ unknown

Time frame considered: Past 40 years (NatureServe 2012)

Listing Status: Extirpated (1960s or 1970s) (NatureServe 2012) SGCN? No

d. NEW YORK

No data _____

i. Abundance

___ declining ___ increasing ___ stable ___ unknown

ii. Distribution:

___ declining ___ increasing ___ stable ___ unknown

Time frame considered: Extirpated: no records since 1985 (NatureServe 2012)

Monitoring in New York.

A survey was completed in 2001 at the location where this species was last recorded; however, no individuals were found (NYNHP 2013).

Intermittent surveys have been conducted in pine barren communities of Long Island over the last 10 years.

Trends Discussion:

There have been severe declines (70-90%) throughout this species' distribution (NatureServe 2012). This species is extirpated in South Carolina and Pennsylvania, and there have been no recent records for Virginia and Georgia (Minno and Minno 2006, NatureServe 2012). The arogos skipper is endangered in New Jersey, North Carolina, Alabama, and Florida (EOL 2011).

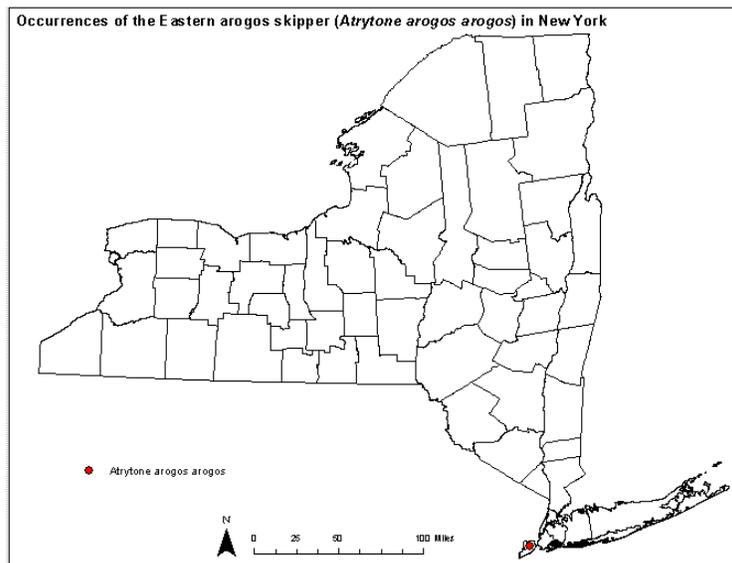
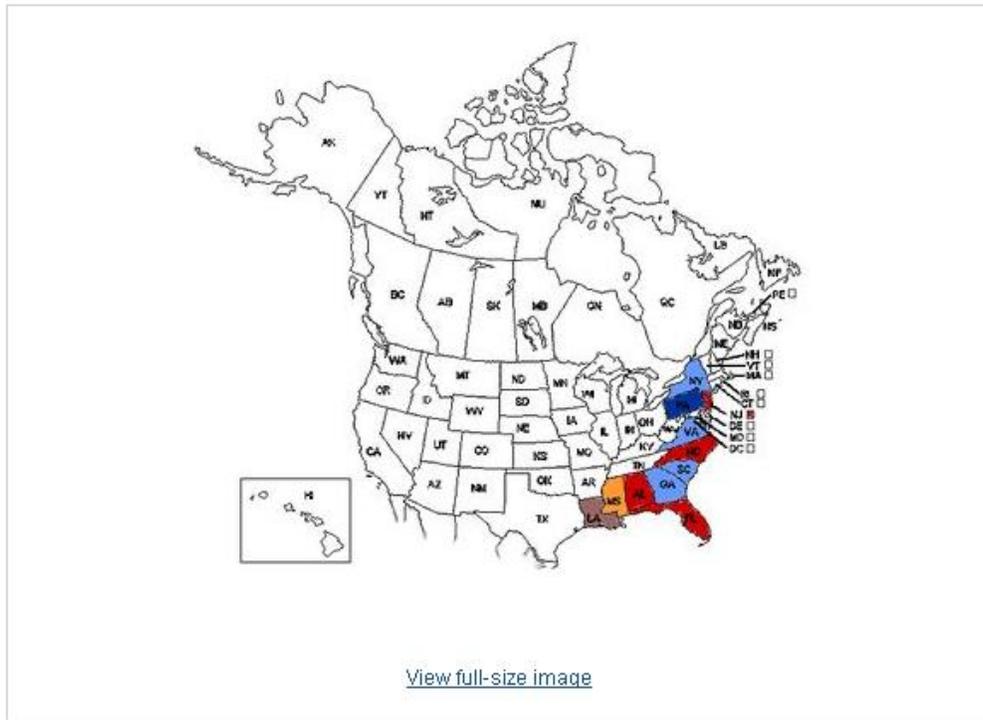


Figure 1. Occurrence location of the arogos skipper in New York (NYNHP 2013).



Description

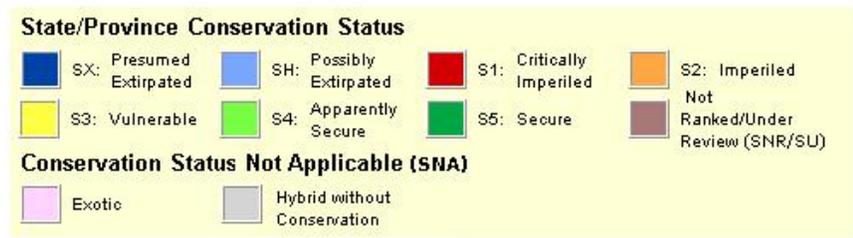


Figure 2: Conservation status of Arogos Skipper in North America (EOL 2011). *NatureServe map on the Encyclopedia of Life.

III. New York Rarity, if known:

	<u># of Animals</u>	<u># of Locations</u>	<u>% of State</u>
Historic prior to 1970	_____	_____	_____
prior to 1980	_____	_____	_____
prior to 1990	_____	<u>1</u>	_____

Details of historic occurrence:

The arogos skipper was historically found on Staten Island, NY. The last recorded occurrence of this species was in 1985 (NYNHP 2013).

Current	<u># of Animals</u>	<u># of Locations</u>	<u>% of State</u>
	_____	<u>0</u>	_____

Details of current occurrence:

There are no current populations of this species in New York; it is considered extirpated.

New York’s Contribution to Species North American Range:

Distribution (percent of NY where species occurs)

- X 0-5%
- _____ 6-10%
- _____ 11-25%
- _____ 26-50%
- _____ >50%

certainty:

Abundance (within NY distribution)

- ___ abundant
- ___ common
- ___ fairly common
- ___ uncommon
- ___ rare

certainty:

NY’s Contribution to North American range

- X 0-5%
- _____ 6-10%

11-25%
 26-50%
 >50% certainty:

Classification of New York Range

Core
 Peripheral
 Disjunct

Distance to core population:

~1,000 miles

IV. Primary Habitat or Community Type:

1. Pine barrens
2. Old field managed grasslands
3. Power line

Habitat or Community Type Trend in New York:

Declining Stable Increasing Unknown

Time frame of decline/increase: Past 30 years (NatureServe 2012)

Habitat Specialist? Yes No

Indicator Species? Yes No

Habitat Discussion:

Arogos skippers require undisturbed prairies and grasslands. In New York, arogos skippers were found in a meadow with glacial till on top of a serpentine outcrop. The site is highly disturbed and relatively flat with dense little bluestem (NJDEP 2013, NYNHP 2013). Farther south this species can

be found in pine barrens, as well as mowed rights-of-way like those found under power lines (Minno and Minno 2006, NatureServe 2012)

V. New York Species Demographics and Life History

- Breeder in New York**
- Summer Resident**
- Winter Resident**
- Anadromous**
- Non-breeder in New York**
- Summer Resident**
- Winter Resident**
- Catadromous**
- Migratory only**
- Unknown**

Species Demographics and Life History Discussion:

Little information is available about the life history and demographics of this species. Adults mate soon after eclosion (NatureServe 2012). Eggs are placed individually on foliage of the food plant (NatureServe 2012).

VI. Threats:

Any extant populations in New York would be threatened by development and other sources of habitat fragmentation as well dirt bike use (NYNHP 2013). Farther south, fire suppression is reducing habitat (Minno and Minno 2006). Other threats known to affect butterflies and skippers include the use of competition with nuisance native species, such as deer, and Gypsy moth spraying (NYSDEC 2005)

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

No Unknown

Yes

The arogos skipper is listed as an endangered species in New York and is protected by Environmental Conservation Law (ECL) section 11-0535 and the New York Code of Rules and Regulations (6 NYCRR Part 182). A permit is required for any proposed project that may result in a take of a species listed as Threatened or Endangered, including, but not limited to, actions that may kill or harm individual animals or result in the adverse modification, degradation or destruction of habitat occupied by the listed species.

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

Conservation actions following IUCN taxonomy are categorized in the table.

Conservation Actions	
Action Category	Action
Law and Policy	Policies and Regulations
Education and Awareness	Training
Education and Awareness	Awareness & Communications
Land/Water Protection	Site/Area Protection
Land/Water Protection	Resource/Habitat Protection
Land/Water Management	Site/Area Management
Land/Water Management	Invasive/Problematic Species Control
Land/Water Protection	Site/Area Protection

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for other butterflies, and for the arogos skipper in particular.

Fact sheet:

- ___ Develop fact sheets and other outreach material to educate the public about species at risk Lepidoptera.

Habitat management:

- ___ Determine best management regimes for species in each locality.

Habitat research:

- ___ Determine precise habitat needs of all life stages.
- ___ Ascertain food plants.
- ___ Determine the relationship between food availability and species numbers.

Invasive species control:

- ___ Identify species which impact negatively on butterfly populations.
- ___ Determine the best control method for those exotic species with minimal repercussions for butterfly populations.

Life history research:

- ___ Investigate the metapopulation dynamics of those species which appear to have distinct populations.
- ___ Establish the duration of all life stages.
- ___ Taxonomic research for related species.

Other action:

- ___ Determine the actual sensitivity of species to chemical formulations, particularly diflubenzuron and other commonly used agricultural pesticides.
- ___ Determine the effect of *Bacillus thuringiensis kurstaki* (BTK) used in Gypsy moth sprayings on various species.

Population monitoring:

- ___ Inventory of species within historical range.

Statewide baseline survey:

- ___ Survey all species to more adequately define the list of species that need to be addressed.

VII. References

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