

## Species Status Assessment

**Class:** Lepidoptera  
**Family:** Noctuidae  
**Scientific Name:** *Catocala jair*  
**Common Name:** Jair underwing

### Species synopsis:

Two subspecies of *Catocala* exist-- *Catocala jair* and *Catocala jair* ssp2. Both occur in New York. Subspecies 2 has seldom been correctly identified leading to false statements that the species is strictly Floridian. Nearly all literature on the species neglects the widespread "subspecies 2." Cromartie and Schweitzer (1997) had it correct. Sargent (1976) discussed and illustrated the taxon but was undecided as to whether it was *C. jair*. It has also been called *C. amica* form or variety *nerissa* and one Syntype of that arguably valid taxon is *jair* and another is *lineella*. The latter should be chosen as a Lectotype to preserve the long standing use of *jair* for this species. Both D.F. Schweitzer and L.F. Gall have determined that subspecies 2 and typical *jair* are conspecific. The unnamed taxon should be named but there is little chance it is a separate species (NatureServe 2012).

### I. Status

#### a. Current and Legal Protected Status

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

#### b. Natural Heritage Program Rank

- i. **Global**      G4?
- ii. **New York**      SNR      **Tracked by NYNHP?**      Yes

### Other Rank:

None

**Status Discussion:**

The long standing G4 rank needs to be re-evaluated. New Jersey, Florida, and Texas would probably drive the global rank. The species is still locally common on Long Island, but total range in New York is only a very small portion of Suffolk County (NatureServe 2012).

**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:** \_\_\_\_\_

Moderate decline

**b. Regional**

**i. Abundance**

  X   declining \_\_\_increasing      \_\_\_stable      \_\_\_ unknown

**ii. Distribution:**

  X   declining \_\_\_increasing      \_\_\_stable      \_\_\_ unknown

**Regional Unit Considered:** \_\_\_\_\_ Northeast \_\_\_\_\_

**Time Frame Considered:** \_\_\_\_\_

Moderate decline



## Monitoring in New York.

None

## Trends Discussion:

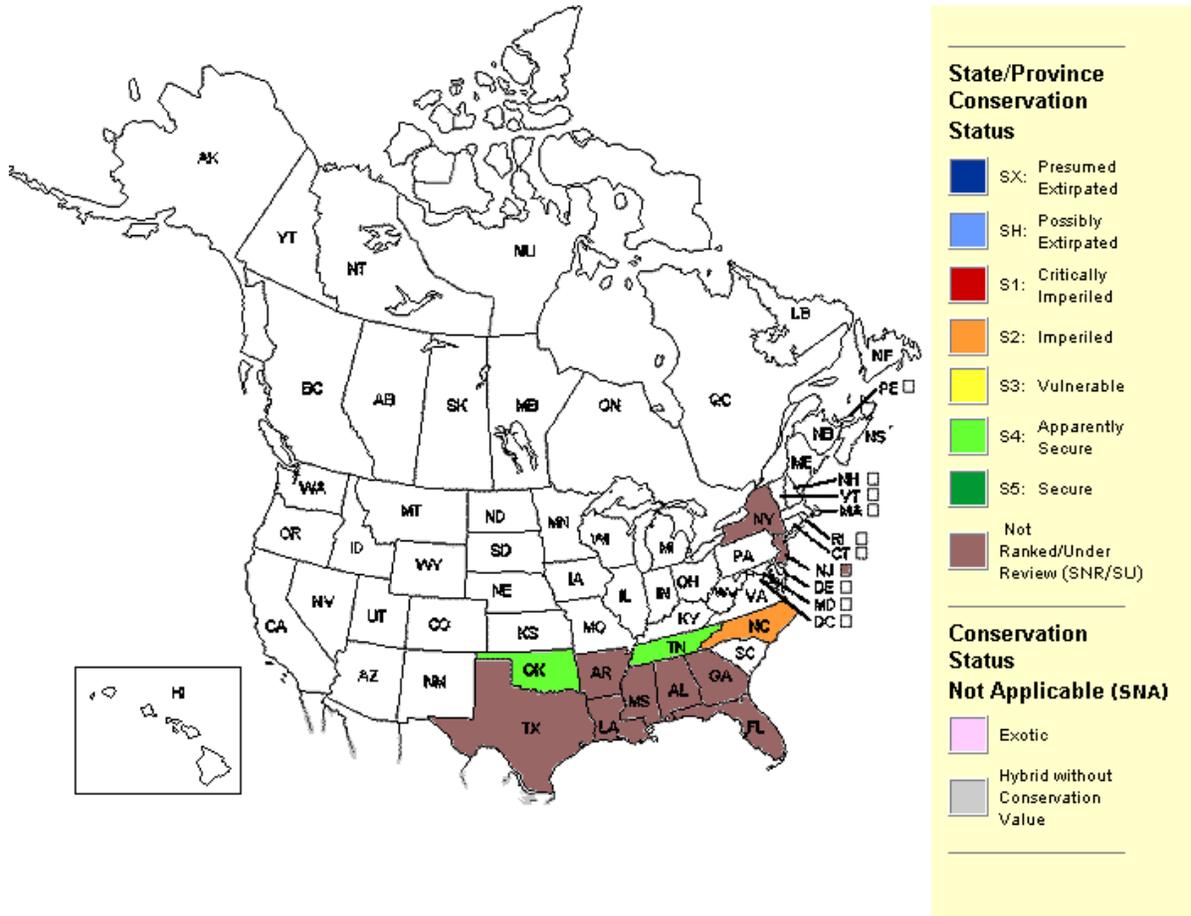


Figure 1. Conservation status of the jair underwing in North America (NatureServe 2012).

**III. New York Rarity, if known:**

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

**Details of historic occurrence:**

No historic occurrence records for the species. Only NYS records are for *Catocala jair* ssp. 2.

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

**Details of current occurrence:**

No historic occurrence records for the species. Only NYS records are for *Catocala jair* ssp. 2.

**New York's Contribution to Species North American Range:**

**Distribution** (percent of NY where species occurs)

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

**Abundance** (within NY distribution)

- abundant
- common
- fairly common
- uncommon
- rare

**NY's Contribution to North American range**

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



**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:**

This species is poorly studied in New York and life history information is largely unavailable. Eggs overwinter, probably hatching about early-mid May in New Jersey, as the oak leaves begin to expand. Larvae are mature there in about mid June and the adults begin to appear three or four weeks later. Adults typically appear in late May in Florida and in early or mid July in New Jersey. The flight season is about a month, but a few probably persist longer. In both New Jersey and Florida, *C. jair* is consistently the latest of the four species of the *C. amica* group--an obvious adaptation to very late budbreak of the scrubby oaks, and high risk of late freezes in many of these extreme habitats. Larvae feed on spring growth of scrub oak. Last instars often must use fairly mature leaves that would kill most oak-feeding *Catocala*. *Quercus ilicifolia* and shrub-form *Q. marilandica* are the foodplants in New Jersey, the former is the foodplant on Long Island. *Q. marilandica* could be used much more widely, but there is no evidence that it actually is (NatureServe 2012).

**VI. Threats:**

Excessive prescribed burning has destroyed much potential habitat in recent decades. Good habitats for this and many other scrub and sand hill Lepidoptera is often considered overgrown, degraded, fire suppressed, etc. (NatureServe 2012).

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

No     Unknown  
 Yes

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

Surveys would be needed to assess the status of the population and change the conservation status the rank from SNR. No specific management/conservation actions have been cited in the literature.

Conservation actions following IUCN taxonomy are categorized in the table.

Conservation Actions	
Action Category	Action
Law and Policy	Policies and Regulations
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 moths, and for the jair underwing in particular.

**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**

Cromartie, W.J. and D. F. Schweitzer, 1997. *Catocala*, *C. louisae*, *C. grisatra* and *C. jair* in North Carolina. Entomological news 108(5):389-390.

NatureServe. 2012. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <<http://www.natureserve.org/explorer>>. Accessed 9 January 2013.

Sargent, T. D. 1976. Legion of Night: The Underwing Moths. University of Massachusetts Press, Amherst, MA. 222 pp. and 8 plates.

**Date last revised:** \_\_\_\_\_ 10 February 2014 \_\_\_\_\_