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**Common Name:** Bay underwing *SGCN*  
**Scientific Name:** *Catocala badia*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G4  
New York: S2S4  
Tracked: No

**Synopsis:**

The bay underwing can be found as far north as Manitoba and Nova Scotia southward to New Jersey and Wisconsin (NatureServe 2012). This noctuid moth was taken many times on Long Island between 1987 and 1995 (NYNHP 2013) and the population is considered secure. In the early 1900s this species was common on the north shore of Massachusetts Bay, in central New York, and the Adirondacks (Holland 1914). There are two subpopulations of this species, *C. coelebs* occurring in the Adirondacks, and *C. badia* occurring in Long Island (SGCN Expert Meeting 2013).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Moderate Decline         | Moderate Decline      |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              |   |                          |                       |
| > 50%  |   | Rare                                  | X |                          |                       |

**Habitat Discussion:**

This species can be found in coastal areas where waxmyrtle or bayberry are plentiful (Covell 1984, Oehlke 2013).

| Primary Habitat Type |
|----------------------|
| Maritime Dunes       |

**Distribution:**

There is an extant population on Long Island, but no specimens have been captured since 1995. (NYNHP 2013, Oehlke 2013).

| Threats to NY Populations                       |  |       |          |                 |
|---|--|-------|----------|-----------------|
| Threat Category                                 | Threat   | Scope | Severity | Irreversibility |
| 1. Residential and Commercial Development       | Housing & Urban Areas (habitat loss)                 | N     | L        | H               |
| 2. Climate Change & Severe Weather              | Habitat Shifting & Alteration (southern range limit) | W     | L        | V               |
| 3. Invasive & Other Problematic Species & Genes | Invasive Non-native/Alien Species (Phragmites)       | R     | L        | H               |

**References Cited:**

Covell, C.V. 1984. A Field Guide to the Moths of Eastern North America. Boston: Houghton Mifflin.

Holland, W.J. 1914. The butterfly book a popular guide to knowledge of the butterflies of North America. Doubleday, Page & Company. Garden City, New York.

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

New York Natural Heritage Program. 2013. Biodiversity Database. New York State Department of Environmental Conservation. Albany, NY. (Accessed: March 5, 2013).

Oehlke, B. 2013. *Catocala badia*. Available at: <<http://www.silkmoths.bizland.com/catbadia.htm>> (Accessed: March 13, 2013).

**Common Name:** Herodias/pine barrens underwing *SGCN*  
**Scientific Name:** *Catocala herodias gerhardi*  
**Taxon:** Butterflies and Moths

**Federal Status:** Not Listed  
**New York Status:** Not Listed

**Natural Heritage Program Rank:**  
Global: G3T3  
New York: S1S2  
Tracked: Yes

**Synopsis:**

The Herodias, or pine barrens underwing, is found mostly in four main areas: the Cape Cod region and adjacent islands of Massachusetts, the Long Island, New York pine barrens, the core of the New Jersey Pine Barrens in Ocean, Burlington, and extreme northern Atlantic Counties (one specimen from Cape May County), and in the mountains from eastern West Virginia to far western North Carolina. Isolated populations are known on two ridge tops in Berkshire County, Massachusetts and at least one such ridge top in the lower Hudson Valley, New York. The extent and continuity of the Appalachian range is unknown. There is a gap in the range across Pennsylvania, but the species could turn up in the shale barrens areas of south-central Pennsylvania and adjacent Maryland (NYNHP 2011).

In New York, this underwing was at least formerly widespread on Long Island and probably still occurs in most extensive pitch pine-scrub oak communities in Suffolk County. It has been documented in Orange County, although it probably does not occur on many sites on the mainland, but it could turn up in a few more nearby counties (NYNHP 2011).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Stable                   | Stable                |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              | X |                          |                       |
| > 50%  |   | Rare                                  |   |                          |                       |

**Habitat Discussion:**

This species is exclusively found in pitch pine-scrub oak communities, usually on sand, but sometimes on acidic rocks in the lower Hudson Valley. In some other parts of the range there may be few enough pitch pines that sites could be considered shrublands rather than wooded (NYNHP 2011).

| Primary Habitat Type |
|----------------------|
| Oak-Pine Forest      |
| Pine Barrens         |

**Distribution:**

There are records from Suffolk County and Orange County. It is uncertain how many occurrences are on Long Island and also difficult to define them there. This species has recently been collected on a ridge top pine barren in Orange County and probably will be found slightly more widely there. Any hill top with

abundant scrub oak on a few hundred acres could potentially have this species, although most probably do not. Southeastern New York is somewhat peripheral to the main range and the species has never been collected in Pennsylvania or as far north as Albany. It has however turned up on a few similar sites in western New England. The New York Natural Heritage Program estimates 6–80 elemental occurrences (EOs) in New York.



NY Nature Explorer (2012)

| Threats to NY Populations               |  |       |          |                 |
|---|--|-------|----------|-----------------|
| Threat Category                         | Threat   | Scope | Severity | Irreversibility |
| 1. Residential & Commercial Development | Housing & Urban Areas (habitat loss/degradation) | R     | L        | H               |
| 2. Natural Systems Modifications        | Fire & Fire Suppression                          | W     | L        | M               |
| 3. Pollution                            | Air-Borne Pollutants (insecticide spraying)      | N     | L        | M               |
| 4. Climate Change & Severe Weather      | Habitat Shifting & Alteration                    | W     | M        | H               |

**References Cited:**

New York State Department of Environmental Conservation (NYSDEC). 2009. New York Nature Explorer. <<http://www.dec.ny.gov/natureexplorer/app/>>. Accessed 7 January 2013.

New York Natural Heritage Program (NYNHP). 2011. Online Conservation Guide for *Catocala herodias* gerhardi. < <http://www.acris.nynhp.org/guide.php?id=8049>>. Accessed 7 January 2013.

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**Common Name:** Jair underwing *SGCN*  
**Scientific Name:** *Catocala jair*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G4?  
New York: SNR  
Tracked: Yes

**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).

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).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Stable                   | Stable                |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              | X |                          |                       |
| > 50%  |   | Rare                                  |   |                          |                       |

**Habitat Discussion:**

Habitats include xeric coastal plain pinelands, including dwarf pine plains in New Jersey and on Long Island. The latter are shrublands. Most habitats would be woodland or savanna. Preferred habitat is in a narrow selection of the most xeric, scrubby oak barrrens or woodland available (NatureServe 2012).

| Primary Habitat Type       |
|----------------------------|
| Native Barrens and Savanna |
| Pine Barrens               |

**Distribution:**

In New York, this species occurs only on Long Island.

| Threats to NY Populations               |  |       |          |                 |
|---|--|-------|----------|-----------------|
| Threat Category                         | Threat   | Scope | Severity | Irreversibility |
| 1. Residential & Commercial Development | Housing & Urban Areas (habitat loss/degradation) | R     | L        | H               |
| 2. Natural System Modifications         | Fire & Fire Suppression                          | W     | L        | M               |
| 3. Pollution                            | Air-Borne Pollutants (insecticide spraying)      | N     | L        | M               |
| 4. Climate Change & Severe Weather      | Temperature Extremes                             | W     | L        | V               |

**References Cited:**

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.

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**Common Name:** Waxed sallow *SGCN*  
**Scientific Name:** *Chaetagnaea cerata*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G3G4  
New York: S1S3  
Tracked: Yes

**Synopsis:**

Waxed sallow moths are distributed from Maine westward to Manitoba and southward to West Virginia. This moth requires an extensive habitat of pitch pine-scrub oak barrens and heathland, associated with dry sandy soils. It can also be found in non-barrens habitat in New Hampshire, Ohio and Pennsylvania. In New York, populations are restricted to Long Island and the Albany Pine Bush. Populations in Long Island are thought to have expanded since wildfires in the 1990s, while populations in the Albany Pine Bush are thought to be in decline and possibly extirpated. Long term trends for waxed sallow moths show a decline of 50–70% due to extensive habitat loss (Nelson 2007, New York Natural Heritage Program 2011, NatureServe 2011).

There is one current occurrence in Hither Hills State Park, Suffolk County in 2007 (New York Nature Explorer 2009). The Albany Pine Bush population was last confirmed in 1990 and may now be extirpated (SGCN Experts Meeting).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Moderate Decline         | Moderate Decline      |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              | X |                          |                       |
| > 50%  |   | Rare                                  |   |                          |                       |

**Habitat Discussion:**

This species is most often found in barrens or heathlands of some sort. In the upper Midwest this species inhabits jack pine (*Pinus banksiana*) and oak barrens. In New England and New York, the preferred habitat is pitch pine (*Pinus rigida*) and scrub oak (*Quercus ilicifolia*) barrens, as well as coastal heathlands. Populations found in New Hampshire, Ohio and Pennsylvania inhabit non-barrens habitats. Other occupied habitats can be described as brush prairie or scrub oak thickets (Nelson 2007, NatureServe 2012). This species requires large patches of high quality barrens in some parts of its range (New York Natural Heritage Program 2011).

| Primary Habitat Type       |
|----------------------------|
| Coastal Coniferous Barrens |
| Coastal Hardwoods          |
| Oak-Pine Forest            |
| Pine Barrens               |

**Distribution:**

This species was first documented in the Pine Bush Preserve, Albany County, NY in 1979, and again in 1980, 1986 and 1990. This species was first documented in the Long Island Dwarf Pine Barrens Suffolk County, NY in 1975 and again in 1986 (New York Nature Explorer 2009). One specimen at North Carolina University had been collected in Poughkeepsie, Dutchess County, NY in 1960s (New York Natural Heritage Program 2011). Historically this species distribution included the Lower New England Piedmont and Great Lakes ecoregions (NYSDEC 2005).

There is one current occurrence in Hither Hills State Park, Suffolk County from 2007 (New York Nature Explorer 2009). The Albany Pine Bush population was last confirmed in 1990 and may now be extirpated.



NY Nature Explorer (2009)

| Threats to NY Populations               |  |       |          |                 |
|---|--|-------|----------|-----------------|
| Threat Category                         | Threat   | Scope | Severity | Irreversibility |
| 1. Residential & Commercial Development | Housing & Urban Areas (habitat loss/degradation) | R     | L        | H               |
| 2. Natural System Modifications         | Fire & Fire Suppression                          | W     | L        | M               |
| 3. Pollution                            | Air-Borne Pollutants (insecticide spraying)      | N     | L        | M               |
| 4. Climate Change & Severe Weather      | Habitat Shifting & Alteration                    | W     | L        | V               |

**References Cited:**

Nelson, M.W. 2007. Massachusetts rare species fact sheets. Massachusetts Division of Fisheries & Wildlife, Westborough, MA. <[http://www.mass.gov/dfwele/dfw/nhosp/species\\_info/fact\\_sheets.htm](http://www.mass.gov/dfwele/dfw/nhosp/species_info/fact_sheets.htm)>. Accessed 22 February 2013.

New York Natural Heritage Program. 2011. Online Conservation Guide for *Chaetoglaea cerata*. Available from: <http://www.acris.nynhp.org/guide.php?id=8138>. Accessed February 21st, 2013.

New York State Department of Environmental Conservation. 2009. New York Nature Explorer. <<http://www.dec.ny.gov/natureexplorer/app/>>. Accessed 20 February 2013.

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

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**Common Name:** A noctuid moth *SGCN*  
**Scientific Name:** *Chytonix sensilis*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G4  
New York: S1S3  
Tracked: Yes

**Synopsis:**

The rarity of *Chytonix sensilis* is unclear in New York State due to closeness of the similar species *C. ruperti*. This species has been confirmed in three counties (Albany, Suffolk, Clinton) in New York over the last 23 years. The historic distribution of this species spanned from Maine to Florida and westward into Michigan. Increased surveying efforts in New York have lead to more known occurrences. There may be more populations on Long Island than what is currently known (New York Natural Heritage Program 2011).

This species prefers habitat with sandy soils and pitch pine-scrub oak, but has been found to thrive in areas with acidic rocks such as granite. Larva feed on fungus and can be found on leaf litter or woody debris (New York Natural Heritage Program 2011). Further research is required to more adequately understand species distribution, trends and life cycle. It is thought to be a fire-sensitive species, with population increases in areas that have been burned within the last decade (McCabe 1995). Major threats to *Chytonix sensilis* are thought to be development within crucial habitat and the control of natural fires (New York Natural Heritage Program 2011).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       |   | Abundant                              |   | Stable                   | Stable                |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     | X | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              | X |                          |                       |
| > 50%  |   | Rare                                  |   |                          |                       |

**Habitat Discussion:**

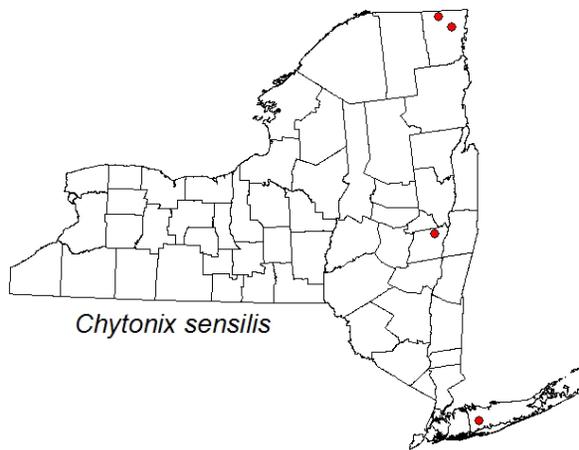
*Chytonix sensilis* can be found in dry sites with pitch pine-scrub oak structure, such as those found in Albany Pine Bush and Long Island. This species can also occur in sandstone pavement barrens, similar to that found Clinton County. Most of its range occurs over sandy soils, but has been found to occur on acidic rocks such as granite (New York Nature Heritage Program 2011).

| Primary Habitat Type       |
|----------------------------|
| Cliff and Talus            |
| Coastal Coniferous Barrens |
| Coastal Hardwoods          |
| Erosional Bluff            |
| Maritime Dunes             |
| Mixed Northern Hardwoods   |

|                              |
|------------------------------|
| Mountain Spruce-Fir Forests  |
| Native Barrens and Savanna   |
| Oak Forest                   |
| Oak-Pine Forest              |
| Old Field/Managed Grasslands |
| Open Acidic Peatlands        |
| Pasture/Hay                  |
| Pine Barrens                 |
| Spruce-Fir Forests and Flats |

**Distribution:**

In 1990 this species was documented in the Albany Pine Bush Preserve, Albany County. Another recorded occurrence was reported in 1992 in Edgewood Oak Brush Plains Preserve, within the town of Babylon, Suffolk County. In Clinton County, this species was documented in 1995 in the town of Altona and in 2003 in Gadway Sandstone Pavement Barrens Preserve, in the town of Mooers. The synonym species *C. ruperti* can easily be mistaken for *C. sensilis* and the two species have overlapping ranges. The Clinton County occurrence most likely was *C. ruperti* and could be falsely labeled as *C. sensilis* (New York Natural Heritage Program 2011).



NYNHP (2013)

| Threats to NY Populations                 |  |       |          |                 |
|---|--|-------|----------|-----------------|
| Threat Category                           | Threat                                     | Scope | Severity | Irreversibility |
| 1. Residential and Commercial Development | Housing & Urban Areas (habitat loss)       | R     | L        | H               |
| 2. Natural System Modifications           | Fire & Fire Suppression (fire suppression) | R     | L        | M               |

**References Cited:**

McCabe, T.L., 1995. The changing insect fauna of Albany’s pine barrens. In: Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of US Plants, Animals, Ecosystems. US Dept. Int., National Biological Survey, Washington, DC, pp. 166-168.

New York Natural Heritage Program. 2011. Online Conservation Guide for *Chytonix sensilis*. Available from: <http://www.acris.nynhp.org/guide.php?id=8125>. Accessed 8 February 2013.

New York Natural Heritage Program (NYNHP). 2013. Biodiversity database. Albany, NY. Accessed 8 February 2013.



| Threats to NY Populations               |  |       |          |                 |
|---|--|-------|----------|-----------------|
| Threat Category                         | Threat   | Scope | Severity | Irreversibility |
| 1. Residential & Commercial Development | Housing & Urban Areas (habitat loss/fragmentation) | R     | L        | H               |
| 2. Natural Systems Modifications        | Fire & Fire Suppression (fire suppression)         | W     | L        | M               |

**References Cited:**

McGuinness, Hugh. 2006. Overview of the 2005 Dwarf Pine Plains data.

New York Natural Heritage Program. 2012. Online Conservation Guide for *Cicinnus melsheimeri*. Available from: <http://www.acris.nynhp.org/guide.php?id=8125>. Accessed 8 February 2013.

**Common Name:** Regal moth *SGCN*  
**Scientific Name:** *Citheronia regalis*  
**Taxon:** Butterflies and Moths

**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G4G5  
New York: S1  
Tracked: Yes

**Synopsis:**

The regal moth, also known as the royal walnut moth or hickory horned devil, is a deciduous forest species found in the eastern United States from Massachusetts to Missouri and southward to Texas and central Florida (Covell 1984, Tuskes et al. 1996). This species is common in the southern United States and becomes sporadically distributed or extirpated north and east of southern New Jersey (NatureServe 2013). It has been extirpated in Massachusetts and reaches the northern extent of the distribution on Long Island, NY. Short term trends for this species are relatively stable with 10% change. This species is thought to be declining in Ohio, but there is little information to support this. The regal moth is recovering and expanding in southern New Jersey. The long term trend for this species ranges from an increase of 10–25% to a decline of 30% (NatureServe 2013).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Stable                   | Unknown               |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              |   |                          |                       |
| > 50%  |   | Rare                                  | X |                          |                       |

**Habitat Discussion:**

Exact habitat preferences for regal moths are unknown. However, the polyphagous larvae feed on a wide variety of deciduous trees and shrubs including black walnut (*Juglans nigra*), butternut (*Juglans cinerea*), hickories and peacan (*Carya* spp.), persimmon (*Dospyros virginiana*), sweetgum (*Liquidambar styraciflus*), sumac (*Rhus* spp.), ash (*Fraxinus* spp.), blackgum (*Nyssa sylvatica*), willow (*Salix* spp.), lilac (*Syringia vulgaris*) and cotton (*Gosypium* spp.) (Villard 1969, Ferguson 1971, Worth et al. 1979).

| Primary Habitat Type     |
|--------------------------|
| Mixed Northern Hardwoods |

**Distribution:**

This species was prominent in mainland New York, most of southern New England, and most of Pennsylvania up until the 1950s (NatureServe 2013). This species has been extirpated in several northeastern states (NatureServe 2013). The range is thought to be expanding on Long Island (H. McGuiness, personal communication). There are two known populations from East Hampton, Suffolk County (H. McGuiness, personal communication).

| Threats to NY Populations                       |  |       |          |                 |
|---|--|-------|----------|-----------------|
| Threat Category                                 | Threat   | Scope | Severity | Irreversibility |
| 1. Invasive & Other Problematic Species & Genes | Invasive Non-Native/Alien Species (parasitoid fly) | P     | L        | H               |
| 2. Pollution                                    | Excess Energy (light pollution)                    | R     | L        | M               |

**References Cited:**

Covell C. V. 1984. A Field Guide to the Moths of Eastern North America. Houghton Mifflin Company. Boston, MA. pp. 45-46.

Ferguson, D.C. 1971/ In Dominick, R.B., et al., The moths of America north of Mexic. Fasc. 20.2A, Bobycoidea (Saurniidae), E.W. Classes, Ltd., Middlesex, England. 153 pp.

McGuiness, Hugh. 2013. Email discussion on the distribution of the regal moth on Long Island. Personal communication.

NatureServe. 2013. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1 NatureServe, Arlington, Virginia. <<http://www.natureserve.org/explorer>>. Accessed 7 May 2013.

Tuskes, P.M., J.P. Tuttle, and M.M. Collins. 1996. The wild silk moths of North America: A natural history of the Saturniidae of the United States and Canda. Cornell University Press. Ithica, New York. 250 pp.

Villard, P. 1969. Moths and how to rear them. Funk & Wagnalls, New York. 242pp.

Worth CB, Platt AP, Williams TF. 1982. Differential growth and utilization of three foodplants by first instar larvae of *Citheronia regalis* (Saturniidae). Journal of the Lepidoptera Society 36: 76-82.

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**Common Name:** A hand-maid moth *SGCN*  
**Scientific Name:** *Datana ranaeiceps*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G3G4  
New York: S1S3  
Tracked: Yes

**Synopsis:**

This moth is primarily a species of coastal plain pinelands of Long Island, New York, southern New Jersey, and southeastern Virginia southward to Florida, but Forbes (1948) also reports it from Arkansas and the Delaware Water Gap, Pennsylvania. In New York this species is currently found in one location—on Long Island—in open mesic or less often xeric pinelands especially for the first few years after wildfires (Wagner 2005, Schweitzer et al. 2011, NYNHP 2013a, NYNHP 2013b). Although the population on Long Island seems stable (NYNHP 2013), this species is undergoing a long term decline throughout most of its range (Wagner 2005).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Severe Decline           | Severe Decline        |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              |   |                          |                       |
| > 50%  |   | Rare                                  | X |                          |                       |

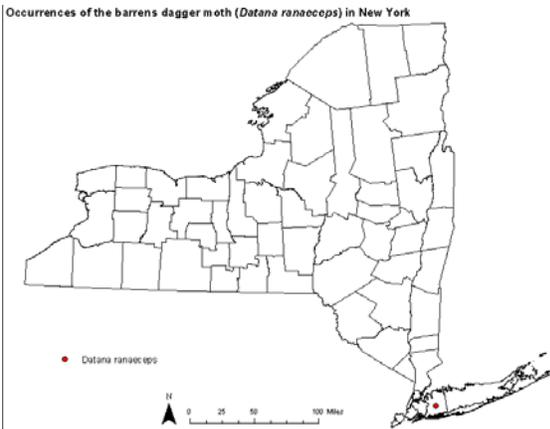
**Habitat Discussion:**

This species occurs in mesic to xeric open pinelands with an abundance of the foodplant. It can also be found in mowed rights-of-way through pine barrens (Schweitzer et al. 2011).

| Primary Habitat Type |
|----------------------|
| Pine Barrens         |

**Distribution:**

This species is currently found in one location on Long Island. There is a historic record from Bear Mountain, Orange County from well before 1950 (NYNHP 2013b). In 1989, ten larvae were seen on a foodplant during a survey at Mitchel Field, in the Town of Hempstead, Nassau County; 66 larvae were seen there in 1991 (NYNHP 2013b).



NYNHP (2013b)

| Threats to NY Populations                       |  |       |          |                 |
|---|--|-------|----------|-----------------|
| Threat Category                                 | Threat   | Scope | Severity | Irreversibility |
| 1. Residential & Commercial Development         | Housing & Urban Areas (habitat loss/degradation)     | R     | L        | H               |
| 2. Natural Systems Modifications                | Fire & Fire Suppression                              | W     | L        | M               |
| 3. Pollution                                    | Air-Borne Pollutants (insecticide spraying)          | N     | L        | M               |
| 4. Invasive & Other Problematic Species & Genes | Invasive Non-Native/Alien Species (parasitoid flies) | P     | L        | H               |
| 5. Natural System Modifications                 | Other Ecosystem Modifications (succession)           | P     | L        | M               |

### References Cited:

Forbes, W.T.M. 1948. Lepidoptera of New York and Neighboring States. Part II: Geometridae, Spingidae, Notodontidae, Lymantriidae. Memoir 274. Cornell U. Agric. Experiment Station.

New York Natural Heritage Program (NYNHP). 2013a. Online Conservation Guide for *Datana ranaeceph*. Available at: <<http://www.acris.nynhp.org/guide.php?id=7976>> (Accessed: March 26, 2013).

New York Natural Heritage Program (NYNHP). 2013b. Biodiversity Database. New York State Department of Environmental Conservation. Albany, NY. (Accessed: March 5, 2013).

Schweitzer, D.F., Minno, M.C., and D.L. Wagner. 2011. Rare, declining, and poorly known butterflies and moths (Lepidoptera) of forests and woodlands in the eastern United States. U.S. Department of Agriculture Forest Service.

Wagner, D.L. 2005. Caterpillars of eastern North America. Princeton University Press. Princeton, New Jersey.

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**Common Name:** Imperial moth *SGCN*  
**Scientific Name:** *Eacles imperialis pini*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G5T3T4  
New York: SNR  
Tracked: No

**Synopsis:**

There are two imperial moth subspecies: *Eacles imperialis pini* and *Eacles imperialis imperialis*. The *pini* subspecies feeds exclusively on pines, while the *imperialis* subspecies feeds on several different tree species (NYNHP 2012). The *pini* subspecies is often referred to as the Canadian imperial moth (Schweitzer et al. 2011).

The Canadian imperial moth has a limited range in the northern Great Lakes region. It occurs from the north shore of Lake Superior through northern Michigan, southern Ontario, and adjacent Jefferson County New York, where three were collected in 1991 by Tim McCabe, to extreme southwestern Quebec and into the Lake Champlain-Lake George region of New York (Clinton, Washington, and Warren counties), and Vermont (Schweitzer et al. 2011).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Increasing               | Increasing            |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              | X |                          |                       |
| > 50%  |   | Rare                                  |   |                          |                       |

**Habitat Discussion:**

In the northern portion of its range, this species has been found in calcareous pavement barrens. On Long Island, the precise habitat has not been verified, except that captures were made between maritime grassland and maritime dunes or between a sea level fen and maritime heathland. The following trees have been recorded as foodplants: basswood, birches, cedar, elms, maples, oaks, pines, and walnut (NYNHP 2012). Most commonly, the Canadian imperial moth seems to occur mostly in sandy pine forests and pine plantations, and sometimes the larvae have been noted as significant defoliators. It also occurs in mixed forests with an abundance of white pine (Schweitzer et al. 2011).

| Primary Habitat Type    |
|-------------------------|
| Maritime Dunes          |
| Open Alkaline Peatlands |
| Pine Barrens            |

**Distribution:**

In New York, this species occurs in Jefferson, Seneca, and Suffolk counties (NY Nature Explorer 2009).



NY Nature Explorer (2009)

| Threats to NY Populations                       |   |       |          |                 |
|---|---|-------|----------|-----------------|
| Threat Category                                 | Threat  | Scope | Severity | Irreversibility |
| 1. Biological Resource Use                      | Logging & Wood Harvesting (logging)             | R     | L        | L               |
| 2. Invasive & Other Problematic Species & Genes | Invasive Non-Native/Alien Species (parasitoids) | P     | L        | H               |
| 3. Pollution                                    | Excess Energy (light pollution)                 | N     | M        | M               |

**References Cited:**

New York Natural Heritage Program (NYNHP). 2012. Online Conservation Guide for *Eacles imperialis imperialis*. <<http://www.acris.nynhp.org/guide.php?id=7960>>. Accessed 9 January 2013.

New York State Department of Environmental Conservation (NYSDEC). 2009. New York Nature Explorer. <<http://www.dec.ny.gov/natureexplorer/app/>> Accessed 9 January 2013.

Schweitzer, D.F., M.C. Minno, and D.L. Wagner. 2011. Rare, Declining, and Poorly Known Butterflies and Moths (Lepidoptera) of Forests and Woodlands in the Eastern United States. USFS Technology Transfer Bulletin, FHTET-2009-02.

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**Common Name:** Brown-bordered geometer *SGCN*  
**Scientific Name:** *Eumacaria madopata*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G4  
New York: S2S4  
Tracked: No

**Synopsis:**

Formerly known as *Eumacaria latiferrugata*, this species of moth can be found from Quebec to Florida and westward to South Dakota and eastern Texas (Opler et al. 2012). It is the only species that occurs within this genus in North America. It is thought that this species could be widespread in New York where its foodplants, beach cherry (*Prunus maritima*) and Susquehanna sandcherry (*Prunus susquehanae*) are prevalent. The most recent records from the 1980s (NYNHP 2013, SGCN Expert Meeting) and the nearest known location is in Massachusetts (NatureServe 2012). According to Tim McCabe, the species is documented in New York from 1980s.

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Moderate Decline         | Moderate Decline      |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              |   |                          |                       |
| > 50%  |   | Rare                                  | X |                          |                       |

**Habitat Discussion:**

This species is thought to prefer habitats with its foodplants such as coastal thickets, pine thickets and other habitats with *Prunus* spp. (NYNHP 2013). It can also be found in riparian and floodplain forest, woodland edges, shrubby fields, sand plains, and beaches (Wagner et al. 2001).

| Primary Habitat Type |
|----------------------|
| Maritime Dunes       |
| Pine Barrens         |

**Distribution:**

No map is available.

| <b>Threats to NY Populations</b>          |   |              |                 |                        |
|---|---|--------------|-----------------|------------------------|
| <b>Threat Category</b>                    | <b>Threat</b>                               | <b>Scope</b> | <b>Severity</b> | <b>Irreversibility</b> |
| 1. Residential and Commercial Development | Housing & Urban Areas (habitat loss)        | R            | L               | H                      |
| 2. Human Intrusions & Disturbance         | Recreational Activities (off-road vehicles) | N            | L               | L                      |
| 3. Climate Change & Severe Weather        | Severe Storms & Flooding                    | R            | L               | V                      |

**References Cited:**

NatureServe. 2012. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. <<http://www.natureserve.org/explorer>> (Accessed: March 20, 2013).

New York Natural Heritage Program. 2013. Biodiversity Database. New York State Department of Environmental Conservation. Albany, NY. (Accessed: March 5, 2013).

Opler, P.A., K. Lotts, and T. Naberhaus, coordinators. 2012. Butterflies and Moths of North America. Brown-bordered geometer. Available at: <<http://www.butterfliesandmoths.org/>> (Accessed: March 21, 2013).

Wagner, D.L., Ferguson, D.C., McCabe, T.L. and R.C. Reardon. 2001. Geometrid Caterpillars of Northeastern and Appalachian Forests. United States Department of Agriculture.

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**Common Name:** A noctuid moth *SGCN*  
**Scientific Name:** *Eucloptocnemis fimbriaris*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G4  
New York: S1  
Tracked: Yes

**Synopsis:**

This noctuid moth ranges from New Hampshire to Florida and westward to Indiana and Texas (Covell 1984). In New York, it inhabits maritime grassland and pine barrens on Long Island. Extensive monitoring has found 5 populations in Suffolk County, with one population known to be viable. The long term trend of this species is declining due to habitat loss from development and fire suppression. This species is known to be uncommon/rare in the northern parts of its range (New York Natural Heritage Program 2011). Additional research is needed to determine the larval foodplant of this species and understand habitat requirements.

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Unknown                  | Moderate Decline      |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              |   |                          |                       |
| > 50%  |   | Rare                                  | X |                          |                       |

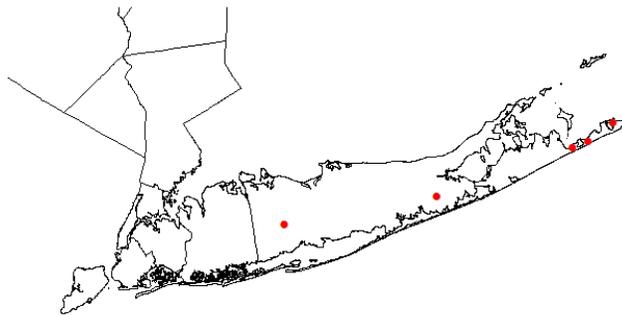
**Habitat Discussion:**

This species inhabits sandy, grassy areas. In New York this species occupies areas of maritime grasslands, maritime heathlands, pitch pine-oak-heath woodlands, and pitch pine-scrub oak barrens. Identification of the larval foodplant, which is currently unknown, will better define the description of this species' preferred habitat (New York Natural Heritage Program 2011).

| Primary Habitat Type         |
|------------------------------|
| Cliff and Talus              |
| Coastal Coniferous Barrens   |
| Coastal Hardwoods            |
| Erosional Bluff              |
| Maritime Dunes               |
| Mixed Northern Hardwoods     |
| Mountain Spruce-Fir Forests  |
| Native Barrens and Savanna   |
| Oak Forest                   |
| Oak-Pine Forest              |
| Old Field/Managed Grasslands |
| Open Acidic Peatlands        |
| Pasture/Hay                  |
| Pine Barrens                 |
| Spruce-Fir Forests and Flats |

**Distribution:**

Five populations exist in Suffolk County, and there is an historic specimen from Saratoga. The population on Long Island has repeatedly been surveyed and appears to be stable and viable (New York Natural Heritage Program 2011). In 1992, one specimen was collected in Edgewood Oak Brush Plain Preserve, Suffolk County. In 1995, 17 adults and in 2000, 20 adults were observed in Montauk County Park, Suffolk County. In 2005, two individuals were collected in dwarf pine barrens in the town of Southampton, Suffolk County. Between 23 May and 17 October 2007, specimens were collected at Napeague State Park and Hither Hills State Park, Suffolk County (New York Natural Heritage Program 2013).



Current locations for *Eucoptocnemis fimbriaris* in New York (NYNHP 2013)

| Threats to NY Populations       |  |       |          |                 |
|---------------------------------|--|-------|----------|-----------------|
| Threat Category                 | Threat                                     | Scope | Severity | Irreversibility |
| 1. Natural System Modifications | Fire & Fire Suppression (fire suppression) | R     | L        | M               |

**References Cited:**

Covell, Charles V. 1984. A field guide to the moths of eastern North America. Houghton Mifflin Company, Boston.

New York Natural Heritage Program. 2011. Online Conservation Guide for *Eucrotopcnemis fimbriaris*. Available from: <http://www.acris.nynhp.org/guide.php?id=8157>. Accessed 7 March 2013.

New York Natural Heritage Program. 2013. Biodiversity database. Albany, NY. Accessed 7 March 2013.

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**Common Name:** Barrens buckmoth *SGCN*  
**Scientific Name:** *Hemileuca maia maia*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Special Concern Global: G5T5  
New York: S1S2  
Tracked: Yes

**Synopsis:**

The buck moth, *Hemileuca maia* (Drury), is a member of Saturniidae, the giant silkworm family, and is in the subfamily Hemileucinae, the buck and day moths. Populations on Long Island and coastal southeastern New England are considered a separate subspecies. For New York, this means *Hemileuca maia maia* refers only to the more normal mainland populations, which are known from Glens Falls and Albany southward to the Shawangunk Ridge in Orange County. Maculation of larvae and almost all adults, and morphological characters of these mainland New York populations, appear to fall within the variation of more variable southern populations which NatureServe and most literature consider typical *H. maia maia*, although New York and other far northern populations do differ in their close association with scrub oak. The Albany area population has probably been isolated a long time and has, or had, a very rare form in which the white forewing band is completely missing. Apparently, such a form is not known from any other eastern United States population of any species of this genus (New York Natural Heritage Program 2011).

Only three occurrences have recently been documented and one of these has not been verified as extant since 1985. However, the recent discovery in the Shawangunks and the rediscovery on the Kittatinny Ridge in nearby New Jersey indicates there is the potential for a few more occurrences of this subspecies in this region of New York. The Long Island populations are considered phenotypically distinct and the coastal and inland species were combined for assessment purposes (SGCN expert meeting). There has been a substantial to large decline (approximately 50%–90%), based on a loss of the original habitat (New York Natural Heritage Program 2011).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       |   | Abundant                              | X | Stable                   | Stable                |
| 6% to 10%                                      | X | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              |   |                          |                       |
| > 50%  |   | Rare                                  |   |                          |                       |

**Habitat Discussion:**

The Albany Pine Bush and Glens Falls populations are on remnants of once extensive sand plain pine barrens which is typical for the species at this latitude. Such populations occur in scrub oak areas with almost no tree cover or a sparse pitch pine canopy. Recent photographs of larva from the Shawangunk Ridge in southeastern New York indicates that some scrub oak habitats in this region support populations as they do in adjacent northern New Jersey. The northern New Jersey population is found in scrub oak areas, but in general, the habitats for these ridge top occurrences are not well understood and it possible they could occur in other dry scrubby situations (New York Natural Heritage Program 2011).

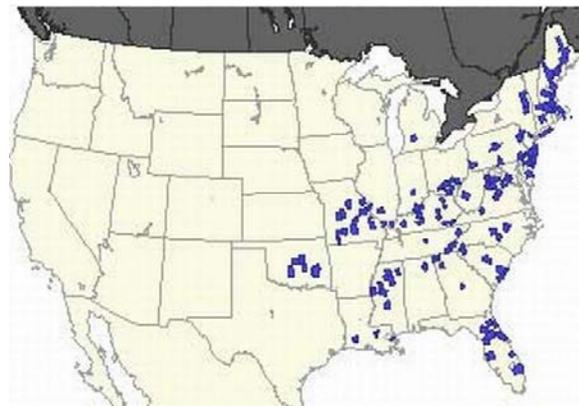
|                             |
|-----------------------------|
| <b>Primary Habitat Type</b> |
| Oak-Pine Forest             |
| Pine Barrens                |

**Distribution:**

This species occurred historically in Warren County (Glens Falls) and in Albany County (Albany Pine Bush). Recent records are from Orange and Sullivan counties.



NY Nature Explorer (2009)



University of Florida IFAS Extension (2012)

| <b>Threats to NY Populations</b>          |  |              |                 |                        |
|---|--|--------------|-----------------|------------------------|
| <b>Threat Category</b>                    | <b>Threat</b>  | <b>Scope</b> | <b>Severity</b> | <b>Irreversibility</b> |
| 1. Residential and Commercial Development | Housing & Urban Areas (habitat loss/fragmentation)                                 | R            | M               | H                      |
| 2. Natural System Modifications           | Other Ecosystem Modifications (natural succession/disruption of natural processes) | W            | M               | L                      |

**References Cited:**

New York Natural Heritage Program. 2011. Online Conservation Guide for *Hemileuca maia maia*. <<http://www.acris.nynhp.org/guide.php?id=7966>>. Accessed 6 December 2012.

New York State Department of Environmental Conservation. 2009. New York Nature Explorer. <<http://www.dec.ny.gov/natureexplorer/app/>> Accessed 6 December 2012.

University of Florida IFAS Extension. 2012. Entomology and nematology publications: Buck moth.  
<<http://edis.ifas.ufl.edu/in834>>. Accessed 6 December 2012.

**Common Name:** Jutta arctic *SGCN*  
**Scientific Name:** *Oeneis jutta*  
**Taxon:** Butterflies and Moths

**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G5  
New York: S1  
Tracked: Yes

**Synopsis:**

The range of jutta arctic is holarctic, spanning North American subarctic habitats from Alaska east across Canada and the northern Great Lakes to Maine. Isolated populations are also found south in the Rocky Mountains to Colorado (Butterflies and Moths of North America 2012). It was first documented in New York in the early 2000s and has been increasing in distribution and abundance (McCabe 2013).

The species is demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery (Butterflies and Moths 2012). McCabe (2013) reports that this species is expanding its distribution and increasing in abundance, yet because it has just a toehold in New York, it should remain on the list of SGCN until a pattern of stability appears.

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Increasing               | Increasing            |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         | X |                          |                       |
| 26% to 50%                                     |   | Uncommon                              |   |                          |                       |
| > 50%  |   | Rare                                  |   |                          |                       |

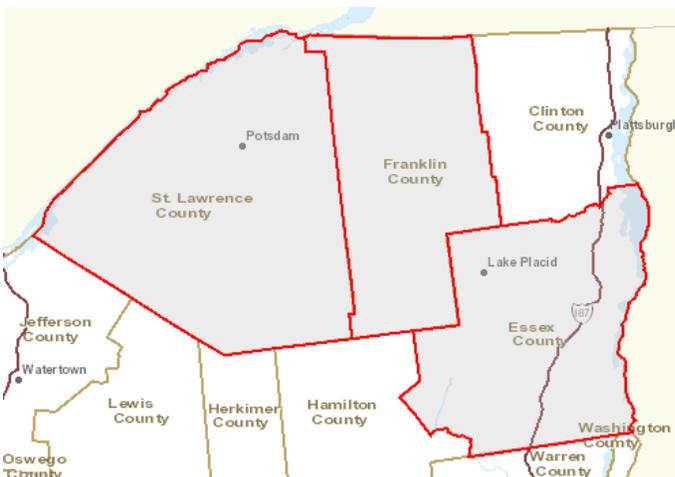
**Habitat Discussion:**

Over most of its range, jutta arctic is found only in black spruce and tamarack bogs and wet taiga and tundra. In Alberta and British Columbia, it flies in clearings and on trails in forests of lodgepole pine. In eastern bogs, it prefers the edges of wooded areas to the more open spaces; it is often seen perching on the tree trunks. When disturbed, it usually flies, very fast, either around the stand of trees or into it, almost never out into the open bog. If not too frightened, it will often return in a few minutes to the same perch. In Manitoba and eastern Ontario it has been observed feeding at the flowers of Labrador tea (*Ledum groenlandicum*) (Layberry et al. 1998).

| Primary Habitat Type         |
|------------------------------|
| Boreal Forested peatland     |
| Mountain Spruce-Fir Forests  |
| Open Acidic Peatlands        |
| Spruce-Fir Forests and Flats |

**Distribution:**

In New York, this species occurs in St. Lawrence, Essex, and Franklin counties.



NY Nature Explorer (2009)

| Threats to NY Populations          |                               |       |          |                 |
|------------------------------------|-------------------------------|-------|----------|-----------------|
| Threat Category                    | Threat                        | Scope | Severity | Irreversibility |
| 1. Climate Change & Severe Weather | Habitat Shifting & Alteration | P     | L        | H               |

**References Cited:**

Butterflies and Moths of North America. 2012. <<http://www.butterfliesandmoths.org/>>. Accessed 10 January 2013.

Layberry, R. A., P. W. Hall, and J. D. Lafontaine. 1998. The Butterflies of Canada. University of Toronto Press, Toronto, Ontario, Canada.

McCabe, T. 2013. Baseline Survey of Lepidoptera Species of Greatest Conservation Need (LSGCN). New York State Wildlife Grant T-17: 2013 Quarterly Report.

New York State Department of Environmental Conservation (NYSDEC). 2009. New York Nature Explorer. <<http://www.dec.ny.gov/natureexplorer/app/>>. Accessed 11 January 2013.

**Common Name:** A noctuid moth *SGCN*  
**Scientific Name:** *Orthodes obscura*  
**Taxon:** Butterflies and Moths

**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G4  
New York: S1?  
Tracked: Yes

**Synopsis:**

Information regarding the biology of *Orthodes obscura* is incomplete. In New York, two specimens were collected in 1996, within sandstone pavement barrens in the towns of Clayton and Lyme, Jefferson County (New York Natural Heritage Program 2013). Further research is needed to determine this species' distribution, habitat preferences, life history, and threats.

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Stable                   | Stable                |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              |   |                          |                       |
| > 50%  |   | Rare                                  | X |                          |                       |

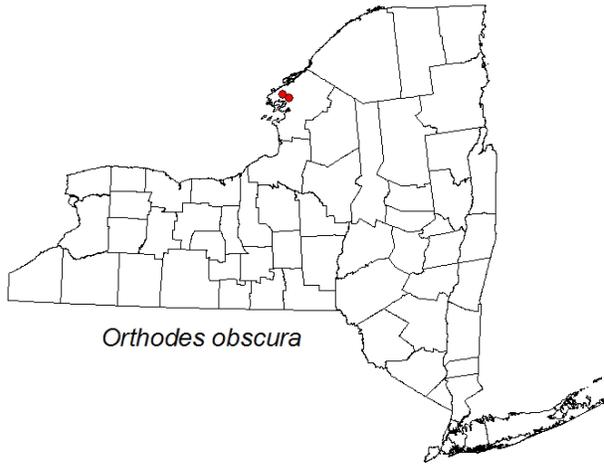
**Habitat Discussion:**

Information regarding this species' preferred habitat is unknown. The two records of occurrence in New York were in limestone pavement barrens with exposed bedrock. The Chaumont Barrens Preserve location contains scrubby, open forest with sparse herb layers. Trees and shrubs included juniper, cedar, and various deciduous species. The second location of occurrence was sparsely vegetated with 60-70% cover. Vegetation was predominantly shrubs including cedar, small birches, and juniper. The herb layer was mostly absent (New York Natural Heritage Program 2013).

| Primary Habitat Type         |
|------------------------------|
| Cliff and Talus              |
| Coastal Coniferous Barrens   |
| Coastal Hardwoods            |
| Erosional Bluff              |
| Maritime Dunes               |
| Mixed Northern Hardwoods     |
| Mountain Spruce-Fir Forests  |
| Native Barrens and Savanna   |
| Oak Forest                   |
| Oak-Pine Forest              |
| Old Field/Managed Grasslands |
| Open Acidic Peatlands        |
| Pasture/Hay                  |
| Pine Barrens                 |

**Distribution:**

This species is currently known from two locations in Jefferson County, both from 1996: Three Mile Creek Road Barrens and Chaumont Barrens Preserve (New York Natural Heritage Program 2013).



NYNHP (2013)

| Threats to NY Populations                       |                                   |       |          |                 |
|---|-----------------------------------|-------|----------|-----------------|
| Threat Category                                 | Threat                            | Scope | Severity | Irreversibility |
| 1. Invasive & Other Problematic Species & Genes | Invasive Non-Native/Alien Species | P     | H        | H               |

**References Cited:**

New York Natural Heritage Program (NYNHP). 2013. Biodiversity database. Albany, New York. Accessed 27 February 2013.

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**Common Name:** Checkered white *SGCN*  
**Scientific Name:** *Pontia protodice*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Special Concern Global: G4  
New York: S1  
Tracked: Yes

**Synopsis:**

There is a spring (short-day) and summer (long-day) form of the checkered white, also called the southern cabbage butterfly. The spring form has strongly reduced black marks above and there is heavy green veining ventrally (Opler and Krizek 1984). Shapiro (1968) showed that the color variation is the result of larvae subjected to long nights of more than 14 hours in the spring (New York Natural Heritage Program 2012).

Checkered whites can be found from southern Canada southward to northern Mexico. They are absent from the Pacific Northwest. In recent times, this species is also absent from New England where there is some question if it ever was a resident in the area. Occurrences are becoming more erratic east of the Appalachians (NatureServe 2012). The species no longer appears widely most years northeast of the Carolinas except for one persistent colony in northern New Jersey and around New York City. Populations have been documented in Queens (New York Natural Heritage Program 2012). Populations do expand northward and then drop back seasonally when winter comes (SGCN Expert Meeting).

The species hadn't been reported since 1990 and populations appear to be declining. It is believed that the decline could be, at least in part, due to the introduction of the parasitoid wasp (*Cotesia glomerata*) to control cabbage white populations (New York Natural Heritage Program 2012). The population expands northward and drops back seasonally when winter comes (SGCN Experts Meeting).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Moderate Decline         | Moderate Decline      |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         |   |                          |                       |
| 26% to 50%                                     |   | Uncommon                              |   |                          |                       |
| > 50%  |   | Rare                                  | X |                          |                       |

**Habitat Discussion:**

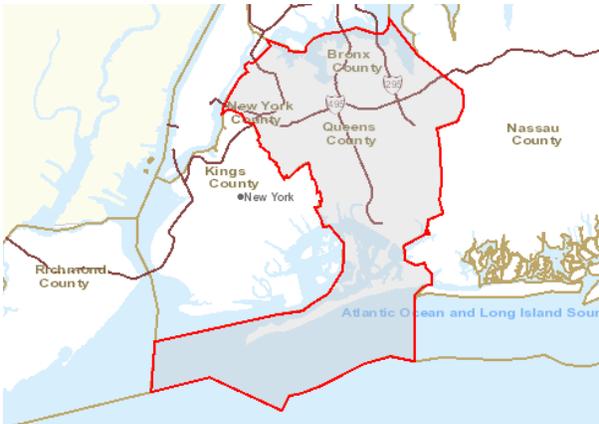
In general, the checkered white can be found in a variety of disturbed habitats lacking heavy shade, such as vacant lots, railroad beds, roads, airports, fields, pastures, and grasslands that also contain their mustard and caper food plants (NatureServe 2012, Butterflies and Moths of North America 2012). In New York, the species has been found in sandy or gravelly disturbed areas with sparse vegetation (New York Natural Heritage Program 2012).

|                             |
|-----------------------------|
| <b>Primary Habitat Type</b> |
| Cultivated Crops            |

|                                |
|--------------------------------|
| Non-native Shrublands          |
| Old Field/Managed Grasslands   |
| Powerline                      |
| Urban and Recreational Grasses |

**Distribution:**

In New York, populations have been documented only in Queens (New York Natural Heritage Program 2012).



NY Nature Explorer (2012)

| Threats to NY Populations                       |   |       |          |                 |
|---|---|-------|----------|-----------------|
| Threat Category                                 | Threat  | Scope | Severity | Irreversibility |
| 1. Transportation & Service Corridors           | Roads & Railroads (construction and maintenance of roadways)                        | P     | L        | H               |
| 2. Invasive & Other Problematic Species & Genes | Problematic Native Species (over-browsing by deer)                                  | N     | L        | H               |
| 3. Invasive & Other Problematic Species & Genes | Invasive Non-Native/Alien Species (parasitoid flies and wasps)                      | N     | L        | H               |
| 4. Invasive & Other Problematic Species & Genes | Invasive Non-Native/Alien Species (garlic mustard, poison to larvae in this family) | P     | M        | M               |

**References Cited:**

Butterflies and Moths of North America. 2012. <<http://www.butterfliesandmoths.org/>>. Accessed 11 December 2012.

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

New York Natural Heritage Program (NHNHP). 2012. Online Conservation Guide for *Pontia protodice*. <<http://www.acris.nynhp.org/guide.php?id=7829>>. Accessed 11 December 2012.

Opler, Paul A. and G. Krizek. 1984. Butterflies East of the Great Plains. The Johns Hopkins University Press, Baltimore.

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**Common Name:** Pink sallow *SGCN*  
**Scientific Name:** *Psectraglaea carnosa*  
**Taxon:** Butterflies and Moths

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G3  
New York: S2  
Tracked: Yes

**Synopsis:**

The pink sallow is a barrens species that is spottily distributed from southern Maine westward to southern Quebec and Ontario to Michigan and Wisconsin, southward to Pennsylvania and New Jersey (NatureServe 2013). In New York, this moth was historically found in the Albany Pine Bush, Albany County and Poughkeepsie, Dutchess County. Three populations are extant in the dwarf pine barrens in Suffolk County (NYNHP 2012a, NYNHP 2013b). The short-term trend throughout the pink sallow’s range has been relatively stable within the core to a decline of 30% in peripheral locations. The long-term trend has declined 10–90%, having lost significant habitat throughout its range (NatureServe 2013). In New York, it is likely that the population in the Albany Pine Bush had disappeared prior to 1900 (NYNHP 2013a).

| Distribution<br>(% of NY where species occurs) |   | Abundance<br>(within NY distribution) |   | NY Distribution<br>Trend | NY Abundance<br>Trend |
|--|---|---------------------------------------|---|--------------------------|-----------------------|
| 0% to 5%                                       | X | Abundant                              |   | Stable                   | Stable                |
| 6% to 10%                                      |   | Common                                |   |                          |                       |
| 11% to 25%                                     |   | Fairly common                         | X |                          |                       |
| 26% to 50%                                     |   | Uncommon                              |   |                          |                       |
| > 50%  |   | Rare                                  |   |                          |                       |

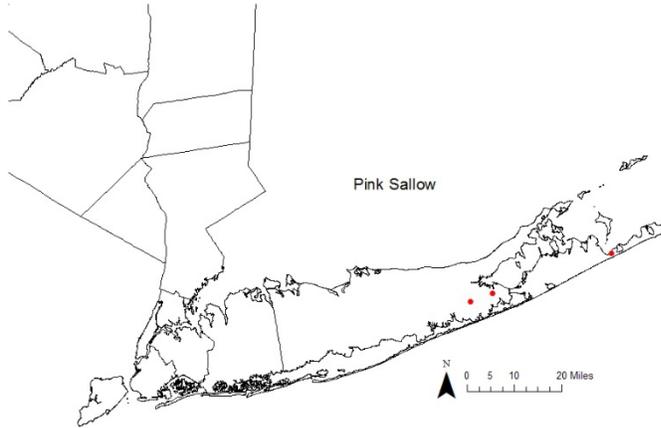
**Habitat Discussion:**

Pink sallow typically occurs in large pine barrens, including dwarf pine areas. This species can occur in scrub oak (*Quercus ilicifolia*) thickets with sparse pine. Most occupied areas are greater than 1,000 acres (NYNHP 2013a). In Massachusetts, pink sallow are regularly found in jack pine (*Pinus banksiana*) and pitch pine (*Pinus rigida*) barrens and maritime heathlands (Schweitzer et al. 2011). Occasionally individuals turn up in ordinary oak forests, which could serve as low quality habitats or strays that have traveled outside the normal habitat (NatureServe 2013). Most habitat sites have sandy soils, but this species does occur on rocky ridgetops and glacial till (Schweitzer et al. 2011). A specific host plant is unknown. Pink sallow has been collected in areas with only pines, lowbush blueberries (*Vaccinium* sp.), and where other *Ericaceae* are readily available (Nelson 2007, Schweitzer et al. 2011).

| Primary Habitat Type        |
|-----------------------------|
| Mountain Spruce-Fir Forests |
| Oak Forest                  |
| Oak-Pine Forest             |
| Pine Barrens                |

**Distribution:**

The pink sallow is widespread throughout Suffolk County, and has been confirmed recently at two sites. In 2007, it was collected at black light traps in Napeague State Park. At David A. Sarnoff Pine Barrens Preserve it was collected multiple times during 1993–2005 (NYNHP 2013b).



NYNHP (2013b)

| Threats to NY Populations                 |  |       |          |                 |
|---|--|-------|----------|-----------------|
| Threat Category                           | Threat   | Scope | Severity | Irreversibility |
| 1. Residential and Commercial Development | Housing & Urban Areas (habitat loss/degradation)   | N     | L        | H               |
| 2. Natural System Modifications           | Fire & Fire Suppression                            | W     | L        | M               |
| 3. Natural System Modifications           | Other Ecosystem Modifications (natural succession) | R     | M        | M               |

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