Species Status Assessment

Class: Birds
Family: Caprimulgidae
Scientific Name: *Chordeiles minor*
Common Name: Common nighthawk

Species synopsis:

Nine subspecies of common nighthawk have been recognized based on plumage color and size. Habitats include mountains and plains in open and semi-open areas: open coniferous forests, savanna, grasslands, fields, vicinity of cities and towns. In New York, populations seem to be concentrated in urban areas where rooftops are presumably used for nesting, and also in areas of the state with open barrens habitat including Fort Drum, eastern Long Island, and eastern Clinton County. Range-wide trends and New York trends show severe population declines, both short-term and long-term. The second Breeding Bird Atlas showed a 71% decline in occupancy in New York over the past 20 years.

I. Status

a. Current Legal Protected Status

i. Federal  Not Listed  Candidate: No

ii. New York  Special Concern; SGCN

b. Natural Heritage Program Rank

i. Global  G5

ii. New York  S2S3B  Tracked by NYNHP? Yes

Other Rank:

Threatened in Canada
IUCN Red List – Least Concern
Status Discussion:

Common nighthawk is a widespread but localized breeder in New York. It is a common to abundant migrant in the fall, though less numerous in the spring. It is ranked as Imperiled in New York, Massachusetts, and Vermont, as Critically Imperiled in Connecticut and New Hampshire, and as Vulnerable in Pennsylvania, New Jersey, and Quebec. It is ranked as Apparently Secure in Ontario.

II. Abundance and Distribution Trends

a. North America

i. Abundance

   ___ declining ___ increasing ___ stable ___ unknown

   _X_ declining ___ increasing ___ stable ___ unknown

   Time frame considered: 1999-2009

ii. Distribution:

   ___ declining ___ increasing ___ stable ___ unknown

   _X_ declining ___ increasing ___ stable ___ unknown

   Time frame considered: 1999-2009

b. Regional

i. Abundance

   ___ declining ___ increasing ___ stable ___ unknown

   _X_ declining ___ increasing ___ stable ___ unknown

ii. Distribution:

   ___ declining ___ increasing ___ stable ___ unknown

   _X_ declining ___ increasing ___ stable ___ unknown

   Regional Unit Considered: Eastern BBS

   Time frame considered: 1999-2009
c. Adjacent States and Provinces

CONNECTICUT

<table>
<thead>
<tr>
<th>Abundance</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Present</td>
<td>Not Present</td>
</tr>
<tr>
<td>X declining</td>
<td>X declining</td>
</tr>
<tr>
<td>increasing</td>
<td>increasing</td>
</tr>
<tr>
<td>stable</td>
<td>stable</td>
</tr>
<tr>
<td>unknown</td>
<td>unknown</td>
</tr>
</tbody>
</table>

Time frame considered: Not specified; surveys 2005-07 documented none
Listing Status: Endangered
SGCN? Yes

MASSACHUSETTS

<table>
<thead>
<tr>
<th>Abundance</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Present</td>
<td>Not Present</td>
</tr>
<tr>
<td>X declining</td>
<td>X declining</td>
</tr>
<tr>
<td>increasing</td>
<td>increasing</td>
</tr>
<tr>
<td>stable</td>
<td>stable</td>
</tr>
<tr>
<td>unknown</td>
<td>unknown</td>
</tr>
</tbody>
</table>

Time frame considered: Severe Decline from 1999-2009
Listing Status: Not Listed
SGCN? No

NEW JERSEY

<table>
<thead>
<tr>
<th>Abundance</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Present</td>
<td>Not Present</td>
</tr>
<tr>
<td>X declining</td>
<td>X declining</td>
</tr>
<tr>
<td>increasing</td>
<td>increasing</td>
</tr>
<tr>
<td>stable</td>
<td>stable</td>
</tr>
<tr>
<td>unknown</td>
<td>unknown</td>
</tr>
</tbody>
</table>

Time frame considered: 1999-2009
Listing Status: Special Concern
SGCN? Yes
<table>
<thead>
<tr>
<th>Province</th>
<th>Status</th>
<th>Abundance</th>
<th>Distribution</th>
<th>Time Frame</th>
<th>Listing Status</th>
<th>SGCN?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario</td>
<td>Not Present</td>
<td>X declining</td>
<td>No data</td>
<td>1981-85 to 2001-05</td>
<td>Not Listed</td>
<td>Yes</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Not Present</td>
<td>X declining</td>
<td>No data</td>
<td>1984-89 to 2004-08</td>
<td>Not Listed</td>
<td></td>
</tr>
<tr>
<td>Quebec</td>
<td>Not Present</td>
<td>X declining</td>
<td>No data</td>
<td>1995-2005</td>
<td>Not Listed</td>
<td></td>
</tr>
</tbody>
</table>
d. New York

i. Abundance

_X_ declining  ____increasing  ____stable  ____unknown

ii. Distribution:

_X_ declining  ____increasing  ____stable  ____unknown

Time frame considered:  _Severe Decline from 1980-85 to 2000-05_________

Monitoring in New York.

None. However, standardized methodology has been developed for whip-poor-will, though that methodology may not be suitable for nighthawk because of its more crepuscular nature and prevalence in urban areas where driving routes may prove difficult.

Trends Discussion:

The second Breeding Bird Atlas showed a 71% decline in occupancy from 1980-85 to 2000-05. Medler (2008) notes that the decline may be higher still because 20% of the 2000-05 records were from May when birds are migrating through New York. During the same period, the BBS data for New York show a significant decline of 1.8% per year with the species essentially disappearing from routes during the 1980s.
Figure 1. Range of the common nighthawk in North America (Birds of North America Online 2013).

Figure 2. Common nighthawk occurrence in New York State during the second Breeding Bird Atlas (McGowan and Corwin 2008).
Figure 3. Change in common nighthawk occurrence in New York State between the first Breeding Bird Atlas and the second Breeding Bird Atlas (McGowan and Corwin 2008).

Figure 4. Conservation status of the common nighthawk in North America (NatureServe 2012).
III. New York Rarity, if known:

<table>
<thead>
<tr>
<th>Historic</th>
<th># of Animals</th>
<th># of Locations</th>
<th>% of State</th>
</tr>
</thead>
<tbody>
<tr>
<td>prior to 1970</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>prior to 1980</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>prior to 1990</td>
<td></td>
<td>477 blocks</td>
<td>9%</td>
</tr>
</tbody>
</table>

Details of historic occurrence:

The first Breeding Bird Atlas (1980-85) documented common nighthawk in 9% of the survey blocks across the state (Andrle and Carroll 1988). There were only 45 blocks with Confirmed records.

<table>
<thead>
<tr>
<th>Current</th>
<th># of Animals</th>
<th># of Locations</th>
<th>% of State</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>138 blocks</td>
<td>3%</td>
</tr>
</tbody>
</table>

Details of current occurrence:

The second Breeding Bird Atlas (2000-05) documented nighthawks in 3% of the survey blocks across the state, a decline of 71%. The number of blocks with Confirmed records was 8, a decline of 81%.

New York’s Contribution to Species North American Range:

**Distribution** (percent of NY where species occurs)  **Abundance** (within NY distribution)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><em>X</em> 0-5%</td>
<td></td>
<td></td>
<td>abundant</td>
</tr>
<tr>
<td>_       6-10%</td>
<td></td>
<td></td>
<td>common</td>
</tr>
<tr>
<td>_       11-25%</td>
<td></td>
<td></td>
<td>fairly common</td>
</tr>
<tr>
<td>_       26-50%</td>
<td></td>
<td></td>
<td>uncommon</td>
</tr>
<tr>
<td>_       &gt;50%</td>
<td></td>
<td></td>
<td>rare</td>
</tr>
</tbody>
</table>

NY’s Contribution to North American range

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>X</em> 0-5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>_       6-10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>_       11-25%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Classification of New York Range

X Core

Peripheral

Disjunct

Distance to core population:

IV. Primary Habitat or Community Type:

1. Commercial/Industrial and Residential
2. Coastal Coniferous Barrens
3. Pine Barrens
4. Pasture/Hay
5. Old Field Managed Grasslands

Habitat or Community Type Trend in New York:

X Declining  Stable  Increasing  Unknown

Time frame of decline/increase: Since 1970s

Habitat Specialist?

Yes  X No

Indicator Species?

Yes  X No

Habitat Discussion:

Habitats include mountains and plains in open and semi-open areas: open coniferous forests, pine barrens, savanna, grasslands, fields, vicinity of cities and towns. Nesting occurs on the ground on a bare site in an open area. In New York, this species also nests on the flat gravel roofs of buildings,
perhaps related to prey availability at artificial lights. This type of roof material is now infrequently used, having been replaced by rubberized surfaces.

V. New York Species Demographics and Life History

**X** Breeder in New York

**X** Summer Resident

___ Winter Resident

___ Anadromous

___ Non-breeder in New York

___ Summer Resident

___ Winter Resident

___ Catadromous

___ Migratory only

___ Unknown

Species Demographics and Life History Discussion:

There is no information on age at first breeding for common nighthawk; they are assumed to breed every year, producing one clutch per year, almost always with two eggs. Their lifespan is at least 4–5 years, with birds 9 years old recorded from band-recovery data (Dexter 1961). They are susceptible to predation from domestic cats. Females are known to return to the same nesting site (Gross 1940, Dexter 1952, 1956, 1961, Brigham et al. 2011), but it is unknown whether that is with the same mate.

VI. Threats:

The cause of the apparent decline is unknown but presumably is related to loss of breeding habitat, declining insect abundance due to pesticides, and increased predation on nests (by cats, dogs, and increased populations of native predators that benefit from anthropogenic food resources) (Ehrlich
et al. 1992, Poulin et al. 1996). Flat rooftops with gravel substrate provided nesting habitat in place of natural open-country habitat, but rubberized rooftops are more frequently installed today.

In an assessment of vulnerability to predicted climate change conducted by the New York Natural Heritage Program, common nighthawk was identified as a second-priority species whose sensitivity should be assessed in the future (Schlesinger et al. 2011).

General threats to the early successional forest/shrubland bird suite in New York include reversion of shrublands to forest; loss of small dairy farms; fire suppression; more intensive agriculture that results in loss of hedgerows, shrubs, and shrub wetlands; reversion of young forest habitat to mature forest; inadequate amounts of forest management that includes even aged and heavy partial removal; and the erroneous public perception that forest management is harmful to birds (NYSDEC 2005).

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

- [ ] No
- [ ] Unknown
- [x] Yes

Common nighthawk is protected under the Migratory Bird Treaty Act of 1918.

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

Placement of gravel pads in the corners of rubberized roofs can provide nesting sites in urban areas (Marzilli 1989) and should be considered as a management tool in these areas. Management of natural succession, including the use of prescribed fire, may be needed in barren habitats in several areas of the state. Development and implementation of a methodology for long-term monitoring is needed. Conservation actions following IUCN taxonomy are categorized in the table below.
<table>
<thead>
<tr>
<th>Action Category</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land/Water Protection</td>
<td>Site/Area Protection</td>
</tr>
<tr>
<td>Land/Water Protection</td>
<td>Resource/Habitat Protection</td>
</tr>
<tr>
<td>Land/Water Management</td>
<td>Site/Area Management</td>
</tr>
<tr>
<td>Land/Water Management</td>
<td>Invasive/Problematic Species Control</td>
</tr>
<tr>
<td>Land/Water Management</td>
<td>Habitat and Natural Process Restoration</td>
</tr>
<tr>
<td>Education and Awareness</td>
<td>Training</td>
</tr>
<tr>
<td>Education and Awareness</td>
<td>Awareness &amp; Communications</td>
</tr>
<tr>
<td>Law and Policy</td>
<td>Policies and Regulations</td>
</tr>
</tbody>
</table>

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for early-successional forest/shrubland birds, which includes common nighthawk.

**Curriculum development:**
- Educate public to the benefits and need for early successional habitat including even-aged management.

**Easement acquisition:**
- Implement a Landowner Incentive Project for early successional birds that will direct $600,000 per year at conserving and creating habitat for early successional forest/shrub birds.

**Habitat management:**
- Work with Utilities to manage ROWs in a manner that will provide for maximum benefit to early successional species.
- Double the amount of early successional forest and shrub habitat on public and private land through sound planned management.
- Increase early successional management on public and private lands.
- Maintain, restore, and enhance fire adapted ecosystems. Increase use of prescribed fire in fire adapted ecosystems.
- Promote management of Utility ROWs that will provide the maximum benefit to shrub bird species.

**Habitat monitoring:**
- Precisely monitor trends of all species, in particular those that are not currently adequately monitored.
- Complete an inventory and analysis for high priority focus species that identifies core habitats (highest abundance) and geographic areas (where appropriate).

**Habitat research:**
- Determine effects of viburnum leaf beetle on early successional forest/shrub habitats and species utilizing them.
Population monitoring:
   Encourage full completion of BBS routes.

Statewide management plan:
   Develop a management plan that provides guidance on maintaining, enhancing and
   restoring early successional forest/shrub bird species.

Other actions:
   Develop better mechanisms for directing federal (NRCS and USFWS) funding programs into
   early successional forest/shrub habitats.
   Develop BMPs for forest management in riparian areas that recognize the critical need
   maintain, enhance and restore early successional forest/shrub habitat in these areas.

VII. References

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