

Species Status Assessment

Class: Birds
Family: Accipitridae
Scientific Name: *Accipiter striatus*
Common Name: Sharp-shinned hawk

Species synopsis:

Populations of sharp-shinned hawk declined across its range during the mid-1900s due to contamination from DDT and from shooting by those who saw this raptor as a threat to songbird populations. Recoveries were noted after DDT was banned and raptors were included in the Migratory Bird Treaty Act under the 1972 amendment. In the 1980s and early 1990s declines in sharp-shinned hawk numbers were noted at hawk watch locations in the Northeast, resulting in the inclusion of the species on the E/T/SC lists in New York, Connecticut, Massachusetts, and New Jersey.

More recently, notable increases in the sharp-shinned hawk's distribution have been documented. Abundance during the breeding season is difficult to assess because of the bird's dense breeding habitat and tendency to become secretive, yet Breeding Bird Survey data show increases in most areas. In New York, the second Breeding Bird Atlas documented a 68% increase in occupancy of sharp-shinned hawks since the mid-1980s. Christmas Bird Count data in New Jersey and Massachusetts show increased wintering populations that suggest a northward expansion of year-round residency. The prevalence of winter bird feeding is thought to have enabled sharp-shinned hawks to short-stop their migration and remain north of some traditional hawk watch locations.

I. Status

a. Current and 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** S4 **Tracked by NYNHP?** No

Other Rank:

NYNHP – Watch List

IUCN Red List Category: LC - Least Concern

Status Discussion:

Sharp-shinned hawk is a widespread breeder in all of New York except the Coastal Lowlands. It is a common migrant and a rare but increasing winter resident.

II. Abundance and Distribution Trends

a. North America

i. Abundance

___ declining X increasing ___ stable ___ unknown

ii. Distribution:

___ declining ___ increasing X stable ___ unknown

Time frame considered: 2000-2010

b. Regional

i. Abundance

___ declining X increasing ___ stable ___ unknown

ii. Distribution:

___ declining ___ increasing X stable ___ unknown

Regional Unit Considered: Eastern BBS

Time Frame Considered: 2000-2010

c. Adjacent States and Provinces

CONNECTICUT **Not Present** _____ **No data** _____

i. Abundance

____ declining X increasing ____ stable ____ unknown

ii. Distribution:

____ declining ____ increasing ____ stable X unknown

Time frame considered: 2000-2010 _____

Listing Status: _____ Endangered _____ SGCN? Yes _____

MASSACHUSETTS **Not Present** _____ **No data** _____

i. Abundance

____ declining X increasing ____ stable ____ unknown

ii. Distribution:

____ declining X increasing ____ stable ____ unknown

Time frame considered: 2000-2010 _____

Listing Status: _____ Special Concern _____ SGCN? Yes _____

NEW JERSEY **Not Present** _____ **No data** _____

i. Abundance

____ declining X increasing ____ stable ____ unknown

ii. Distribution:

____ declining X increasing ____ stable ____ unknown

Time frame considered: 2000-2010 _____

Listing Status: _____ Special Concern _____ SGCN? Yes _____

An increase in wintering birds documented by Christmas Bird Count data in areas north of traditional hawk watch strongly suggests that migratory short-stopping was the cause of declining numbers documented at hawk watch sites during the 1980s and early 1990s. The increased availability of songbird prey provided by bird feeders likely enabled sharp-shinned hawks to extend the year-round range northward.

The decline in sharp-shinned hawk numbers documented at hawk watch sites during the 1980s and early 1990s has been attributed to migratory short-stopping wherein birds remain in areas north of hawk watches (Dunn and Tessaglia 1994, Duncan 1996, Viverette et al. 1996). The increased availability of songbird prey provided by bird feeders increases winter survivorship, particularly for juveniles (Duncan 1996, Viverette et al. 1996) and likely enabled sharp-shinned hawks to extend the year-round range northward.

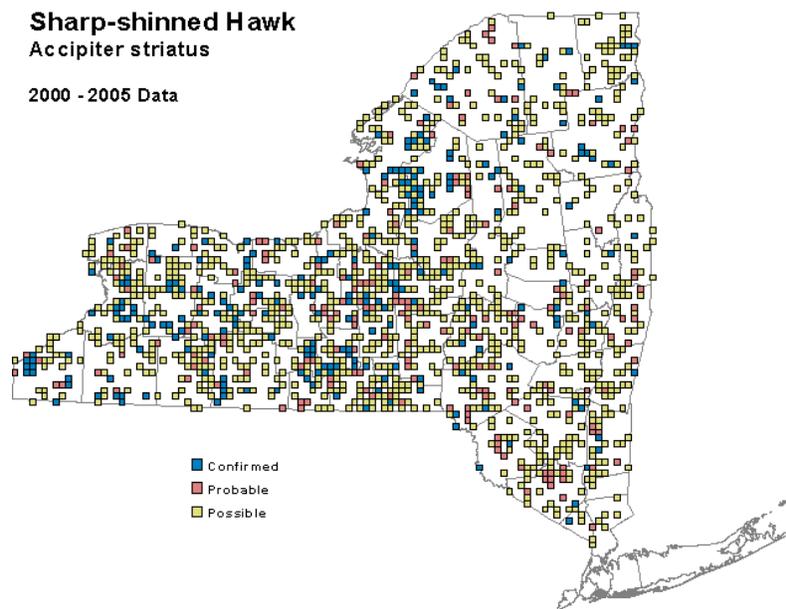


Figure 1. Occurrences of sharp-shinned hawk from the NYS Breeding Bird Atlas (McGowan and Corwin 2008).

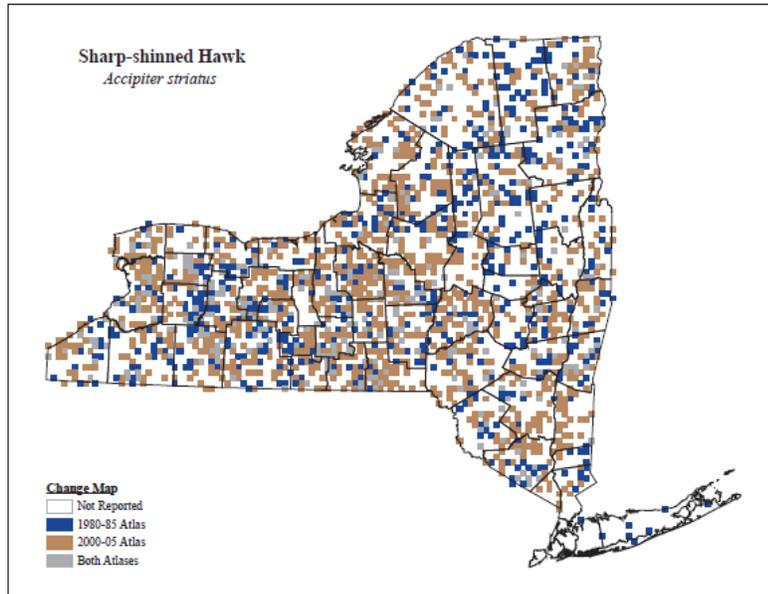


Figure 2. Change in occurrence from the NYS Breeding Bird Atlas (McGowan and Corwin 2008).

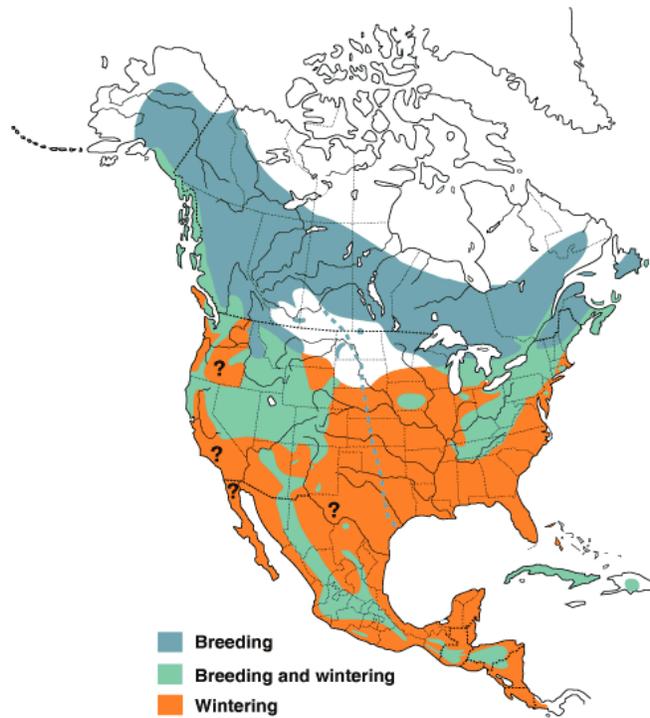


Figure 3. Distribution of sharp-shinned hawk in North America (Birds of North America Online).

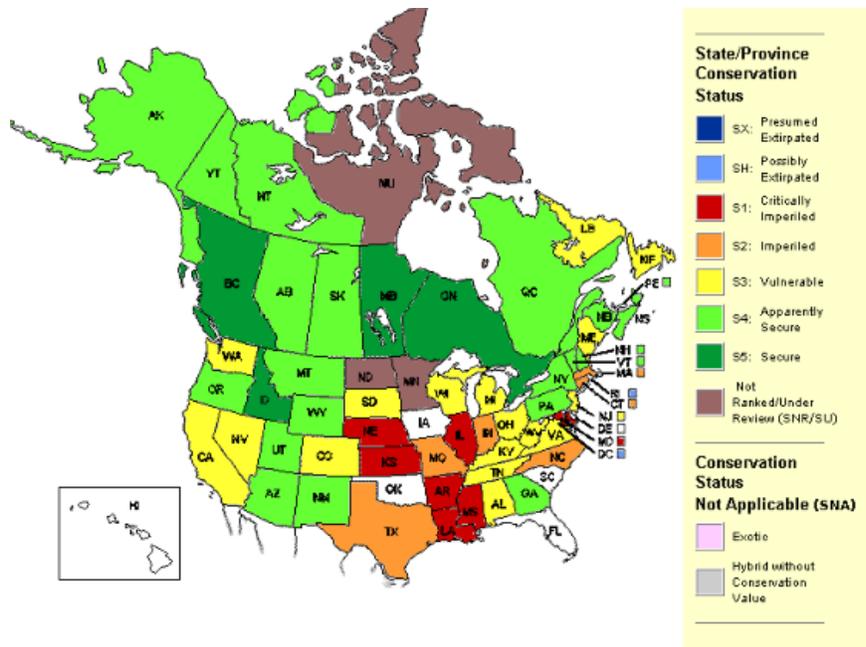


Figure 4. Conservation status of the sharp-shinned hawk in North America (NatureServe 2012).

III. New York Rarity, if known:

Historic	<u># of Animals</u>	<u># of Locations</u>	<u>% of State</u>
prior to 1970	_____	_____	_____
prior to 1980	_____	_____	_____
prior to 1990	_____	_____	<u>16%</u>

Details of historic occurrence:

The first Breeding Bird Atlas (1980-85) documented sharp-shinned hawks in 859 survey blocks (16%) across the state.

Current	<u># of Animals</u>	<u># of Locations</u>	<u>% of State</u>
	_____	_____	<u>27%</u>

Details of current occurrence:

The second Breeding Bird Atlas (2000-05) documented sharp-shinned hawks in 1,440 survey blocks (27%) across the state, and increase of 68% statewide.

New York's Contribution to Species North American Range:

% of NA Range in New York	Classification of New York Range
<u> X </u> 0-5%	<u> X </u> Core
___ 6-10%	___ Peripheral
___ 11-25%	___ Disjunct
___ 26-50%	Distance to core population:
___ >50%	_____

IV. Primary Habitat or Community Type:

1. Plantation and Disturbed Land Pioneer Forests
2. Mixed Northern Hardwoods
3. Oak-Pine Forest

Habitat or Community Type Trend in New York:

Declining Stable Increasing Unknown

Time frame of decline/increase: _____

Habitat Specialist? Yes No

Indicator Species? Yes No

Habitat Discussion:

The sharp-shinned hawk occurs from sea level to almost alpine habitats, breeding in mixed, deciduous, and coniferous forests. Nests are most frequently placed in wooded areas where the canopy is dense and trees are small in diameter and closely spaced (Bildstein and Meyer 2000).

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:

The sharp-shinned hawk's secretive nature and the dense vegetation of its nesting habitat make it difficult to find and study during the breeding season. It is most frequently seen while on migration.

Some sharp-shinned hawks, mostly females, breed at 1 year of age, but most breed at ≥ 2 year. There is no information on intervals between breeding or on lifetime reproductive success (Bildstein and Meyer 2000). The average number of fledglings per nest in North America is 2.7 (Apfelbaum and Seelbach 1983). One brood is produced per season. The longest lifespan reported is 13 years (Keran 1981) but most birds live around three years.

VI. Threats:

Collisions with vehicles, predation, collisions with windows, and gunshot were the leading identifiable causes of mortality in two studies (Keran 1981, Evans and Rosenfield 1985). Although shooting was common and widespread as recently as the 1950s, it no longer occurs to a notable extent.

Acid rain and the control of spruce budworm (which results in reduced songbird populations) are thought to reduce productivity of sharp-shinned hawks. DDT and environmental contaminants have been detected in some sharp-shinned hawks, possibly as a result of eating pesticide-laden migrant songbirds returning from South American wintering areas.

Increased logging in the boreal forest may affect populations by fragmenting habitat (NatureServe 2012). Logging may also cause a reduction in reproductive success due to the sharp-shinned hawk's apparent need for a very closed canopy (S.T. Crocoll, pers. comm.).

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

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

No Unknown

Yes

Sharp-shinned hawk is protected under the Migratory Bird Treaty Act of 1918. Its forest habitat is not protected.

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

A lack of abundance data during the breeding season due to this hawk’s secrecy make it difficult to assess local effects of forest management techniques and habitat degradation due to agriculture or suburban development (Bildstein and Meyer 2000).

Recommendations by Crocoll (2012) based on a small sample size:

- No disturbance to nest territory from 15 April to 15 August
- Maintain a tree canopy closure in the territory of greater than 90% after harvest
- The tree density should be at least 425 trees per hectare
- An uncut buffer of 100m should be maintained around active nests

Conservation actions following IUCN taxonomy are categorized in the table below.

Conservation Actions	
Action Category	Action
Land/Water Protection	Site/Area Protection
Land/Water Protection	Resource/Habitat Protection
Land/Water Management	Site/Area Management
Land/Water Management	Habitat/Natural Process Restoration

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for forest breeding raptors, which includes sharp-shinned hawk.

Habitat management:

— Habitat management for all these species (except the golden eagle, which is effectively extirpated as a breeder) is largely unknown and it is therefore important to experiment with different techniques. Examples include different cutting regimes and different buffer distances (and potentially fire management where appropriate), in both hardwoods and conifers (plantations and native).

VII. References

Apfelbaum, S. I. and P. Seelbach. 1983. Nest tree, habitat selection, and productivity of seven North American raptor species based on the Cornell University nest record card program. *Raptor Res.* 17:97-113.

Bildstein, K. L. and K. Meyer. 2000. Sharp-shinned Hawk (*Accipiter striatus*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/482> doi:10.2173/bna.482

Crocoll, S.T. 2012. Raptor management on New York State forests. Unpublished report. New York State Department of Environmental Conservation , Albany, NY.

Duncan, C. D. 1996. Changes in the winter abundance of Sharp-shinned Hawks in New England. *J. Field Ornithol.* 67:254-262.

Dunn, E. H. and D. L. Tessaglia. 1994. Predation on birds at feeders in winter. *J. Field Ornithol.* 65:8-16.

Evans, D. L. and R. N. Rosenfield. 1985. Migration and mortality of Sharp-shinned Hawks ringed at Duluth, Minnesota, USA. *I.C.B.P. Tech. Publ.* 5:311-316.

Keran, D. 1981. The incidence of man-caused and natural mortalities to raptors. *J. Raptor Res.* 15:108-112.

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

New York State Department of Environmental Conservation (NYSDEC). 2005. New York State Comprehensive Wildlife Conservation Strategy. <<http://www.dec.ny.gov/index.html>>. Accessed 9 July 2013.

Schlesinger, M.D., J.D. Corser, K.A. Perkins, and E.L. White. 2011. Vulnerability of at-risk species to climate change in New York. New York Natural Heritage Program, Albany, NY.

Viverette, C. B., S. Struve, L. J. Goodrich, and K. L. Bildstein. 1996. Decreases in migrating Sharp-shinned Hawks at traditional raptor-migration watchsites in eastern North America. *Auk* 113:32-40.

Date last revised: January 27, 2014