

# Species Status Assessment

**Common Name:** Little blue heron

**Date Updated:** March 10, 2025

**Scientific Name:** *Egretta caerulea*

**Updated By:** M. Oberkircher

**Class:** Aves

**Family:** Ardeidae

**Species Synopsis** *(a short paragraph which describes species taxonomy, distribution, recent trends, and habitat in New York):*

Little blue heron is an uncommon breeder in New York, where it nears the northern edge of its breeding distribution. The majority of the population breeds in the southeastern United States. Population trends can be difficult to determine for this species because the bird's dark coloration makes them difficult to see during aerial surveys. Breeding Bird Survey data show a decreasing trend in North America during 1993-2021.

In New York, breeding occurs only on the Coastal Lowlands. The Long Island Colonial Waterbird Survey documented declines in breeding pairs and colonies of little blue heron since 2000. The second Breeding Bird Atlas (2000-05) documented little change in occupancy. The New York City Audubon Harbor Herons Nesting Survey, conducted annually since 1985, has documented a consistent, low-level presence of little blue herons nesting in the Greater New York/New Jersey Harbor (Craig 2012). A total of eight pairs were found during surveys in 2022 at two sites.

## I. Status

### a. Current legal protected Status

i. **Federal:** Not listed **Candidate:** No

ii. **New York:** Not listed

### b. Natural Heritage Program

i. **Global:** G5

ii. **New York:** S2 **Tracked by NYNHP?:** Yes

### Other Ranks:

-NYS 2025 SGCN Status: Species of Greatest Conservation Need

-IUCN Red List: Least Concern

-Partners in Flight: 11 out of 20

-Northeast Regional SGCN: Watchlist [Defer to SEAFWA]

### Status Discussion:

Little blue heron is an uncommon breeder on Long Island and in the New York-New Jersey Harbor, and a common summer visitant. Little blue heron is ranked as Imperiled in New York and as Critically Imperiled in Massachusetts, Connecticut, and Rhode Island. It is ranked as Vulnerable in New Jersey.

## II. Abundance and Distribution Trends

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
North America	Yes	Declining	Unknown		Not listed	No
Northeastern US	Yes	Declining	Unknown		Watchlist	No
New York	Yes	Declining	Stable	2007-2023		Yes
Connecticut	Yes	Unknown	Unknown		SC	Yes
Massachusetts	Yes	Unknown	Unknown			No
New Jersey	Yes	Unknown	Unknown		SC	Yes
Pennsylvania	No	-	-			No
Vermont	No	-	-			No
Ontario	No	-	-			No
Quebec	No	-	-			No

*Column options*

**Present?:** Yes; No; Unknown; No data; (blank) or Choose an Item

**Abundance and Distribution:** Declining; Increasing; Stable; Unknown; Extirpated; N/A; (blank) or Choose an item

**SGCN?:** Yes; No; Unknown; (blank) or Choose an item

### **Monitoring in New York** (*specify any monitoring activities or regular surveys that are conducted in New York*):

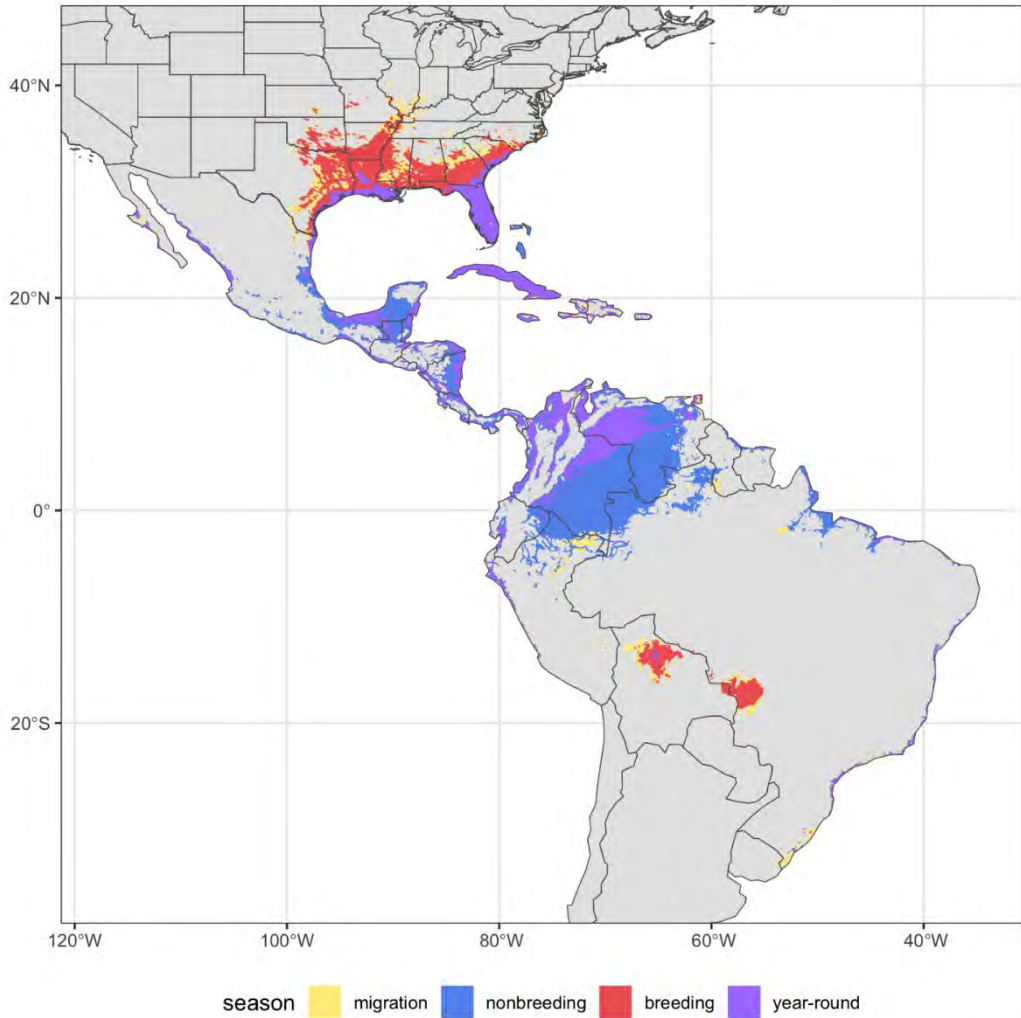
The Long Island Colonial Waterbird Survey conducts surveys for herons every three years. New York City Audubon has conducted the Harbor Herons Nesting Survey in the Greater New York/New Jersey Harbor annually since 1982; the surveys target long-legged wading birds including little blue heron. Every three years all islands that have hosted nesting birds since the start of the program are surveyed. In the years between only islands which had nesting birds the previous year are surveyed.

### **Trends Discussion** (*insert map of North American/regional distribution and status*):

Breeding was first documented in New York in 1958 at Tobay Pond in Nassau County. The distribution expanded through the 1970s with breeding scattered over some 20 or so mixed-species colonies over the years, though few sites have consistently reported the species (Lauro 1998). By 1985, there were 68 breeding pairs in eight colonies. The Long Island Colonial Waterbird Survey has documented a steady decline in breeding pairs from 2001 when 32 pairs were recorded to 2022 when 8 breeding pairs were found. The second Breeding Bird Atlas documented a five percent decline in occupancy from 1980-85 to 2000-05. The NYC Audubon Harbor Heron survey documented a stable, low-level presence annually since 1982 in the Greater NY/NJ Harbor, with high counts below 20 and low counts at about five (nests). From 2002 to 2022, the average annual count was 6 nests and nesting occurred on 9 out of 18 islands surveyed (NYC Audubon).

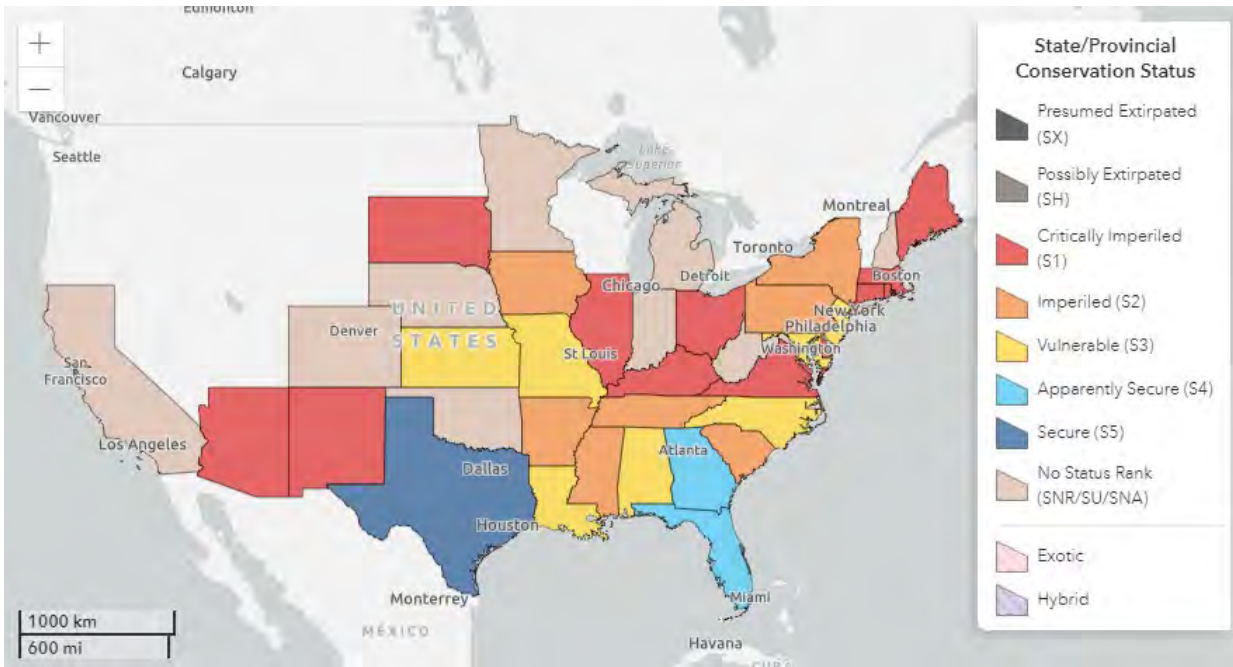
Regional trends from eBird show a -11.6% decline with an upper confidence interval of 0.2% and a lower interval of -25.7% for breeding little blue herons in New York from 2012-2022. Lack of historic and accurate survey data hinders trend analysis for little blue herons across their range. Breeding Bird Survey data show a decrease of -2.5 across the distribution during 1993-2021.

### Year-round range map for Little Blue Heron

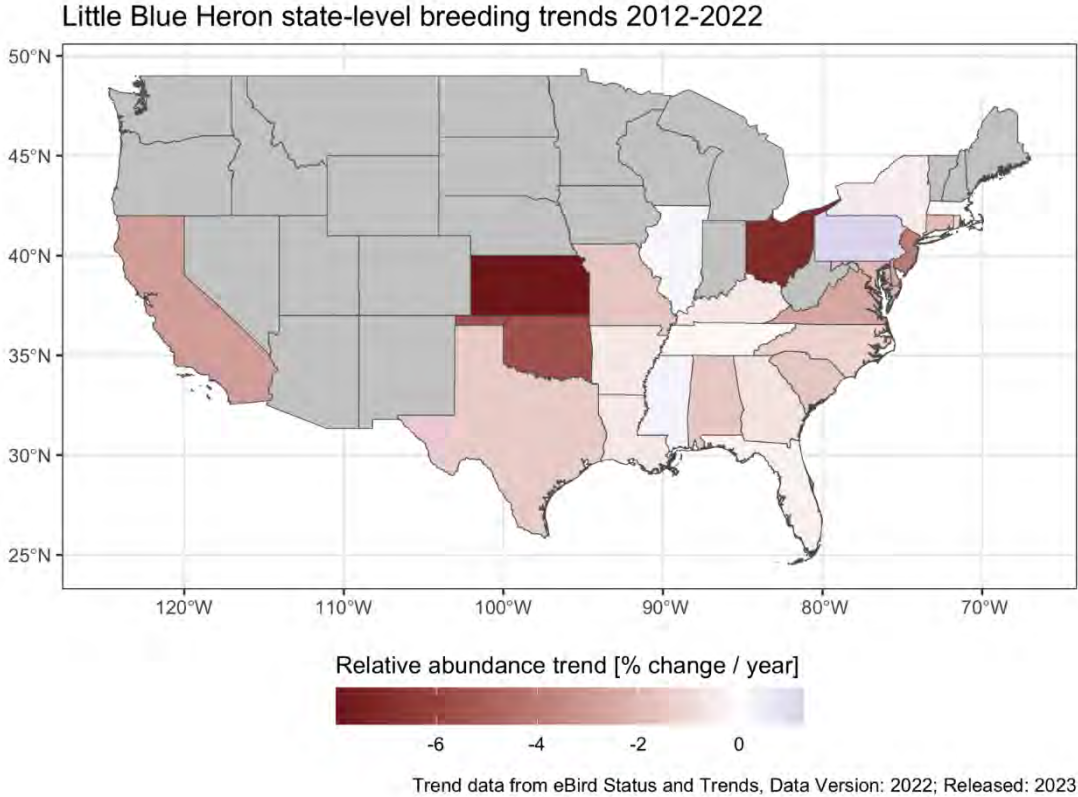


Range map data from eBird Status and Trends, Data Version: 2022; Released: 2023

**Figure 1.** Full (year-round) range for little blue heron (eBird).



**Figure 2.** Conservation status of little blue heron in North America (NatureServe)

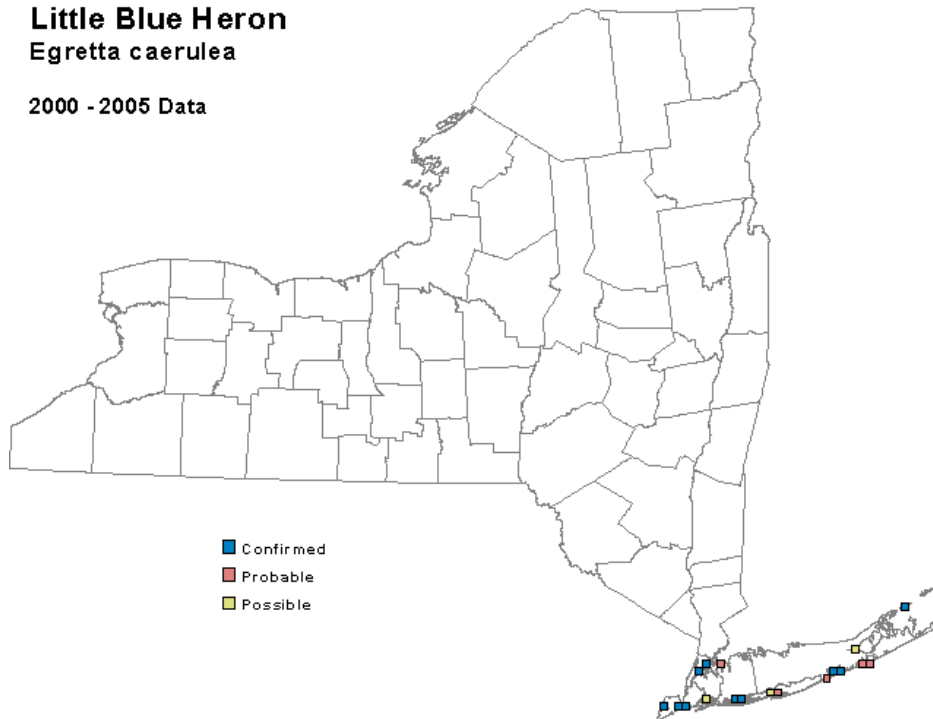


**Figure 3.** Trends, by state, for little blue heron (eBird).

**III. New York Rarity** (provide map, numbers, and percent of state occupied)

**Little Blue Heron**  
**Egretta caerulea**

2000 - 2005 Data



**Figure 4.** Little blue heron occurrence in New York State during the second Breeding Bird Atlas (McGowan and Corwin 2008).

**Details of historic and current occurrence:**

The first Breeding Bird Atlas (BBA) (1980-85) documented occupancy in 19 blocks, 0.4% of the survey blocks statewide (Andrle and Carroll 1988). The second BBA (2000-05) documented occupancy in 18 blocks, 0.3% of the survey blocks statewide (McGowan and Corwin 2008).

The third BBA (2020-25) is currently underway and utilizes a different number and layout of survey blocks across New York, making direct comparison with the first two Atlases difficult. There were 5,333 blocks in the first and second BBAs, and there are 5,710 blocks in the current BBA, of which 1,815 are considered priority blocks. To date, little blue heron has been documented in 10 priority blocks, 0.2% of all priority blocks statewide during the third BBA (NY BBA III Overview, 2024).

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

Percent of North American Range in NY	Classification of NY Range	Distance to core population, if not in NY
1-25%	Peripheral	

*Column options*

**Percent of North American Range in NY:** 100% (endemic); 76-99%; 51-75%; 26-50%; 1-25%; 0%; Choose an item

**Classification of NY Range:** Core; Peripheral; Disjunct; (blank) or Choose an item

**IV. Primary Habitat or Community Type** *(from NY crosswalk of NE Aquatic, Marine, or Terrestrial Habitat Classification Systems):*

1. Freshwater Marsh
2. Lake and River Shore/Beach
3. Hardwood Swamp

4. Northern White Cedar Swamp
5. Riparian
6. Floodplain Forests
7. Old Field Managed Grasslands
8. Estuarine, Brackish Intertidal, Tidal Wetland

**Habitat or Community Type Trend in New York**

Habitat Specialist?	Indicator Species?	Habitat/Community Trend	Time frame of Decline/Increase
No	No	Declining	

*Column options*

**Habitat Specialist and Indicator Species:** Yes; No; Unknown; (blank) or Choose an item

**Habitat/Community Trend:** Declining; Stable; Increasing; Unknown; (blank) or Choose an item

**Habitat Discussion:**

Little blue herons nest in mixed-species assemblages of colonial waterbirds using varied colony habitat and nesting substrate. Nesting occurs mostly in shrubs and small trees in standing water or upland sites on islands. Wetlands used for nesting include both freshwater and bottomland hardwood swamps, and marine-estuarine habitats. On the coast preferred habitats are salt marshes, ponds and mud flats while wooded swamps, ponds and streams are utilized in inland situations. Colony sites are located in riparian habitats, swamps, ponds, lakes, human-made impoundments, and on natural and human-made (dredged-material) islands (Rodgers and Smith 1995).

Little blue herons feed in a variety of freshwater and marine-estuarine habitats, including marshes, swamps, streams and rivers, ponds, lakes, impoundments, lagoons, tidal flats and wetlands, canals, ditches, fish-rearing facilities, and flooded agricultural fields.

In New York, nesting occurs on coastal marsh scrub/shrub islands in dense thickets and trees. Foraging occurs in estuaries surrounding the islands (Rodgers and Smith 1995, McCrimmon 2006, NYNHP 2009).

**V. Species Demographic, and Life History:**

Breeder in NY?	Non-breeder in NY?	Migratory Only?	Summer Resident?	Winter Resident?	Anadromous/Catadromous?
Yes	Yes	No	Yes	No	-

*Column options*

**First 5 fields:** Yes; No; Unknown; (blank) or Choose an item

**Anadromous/Catadromous:** Anadromous; Catadromous; (blank) or Choose an item

**Species Demographics and Life History Discussion** *(include information about species life span, reproductive longevity, reproductive capacity, age to maturity, and ability to disperse and colonize):*

Little blue herons breed as yearlings, based on the presence of white plumage (Neill 1949, Palmer 1962, Hopkins 1971) and known-age banded birds (Rodgers 1978, 1980). A typical clutch consists of 3-5 eggs. The greatest reported longevity of a banded little blue heron was 13 years, 11 months

(Clapp et al. 1982). Because of difficulty in following nestling herons once they become mobile, studies usually monitor breeding success only to the age of 10–14 days. The mortality rate is typically greatest during the first two weeks after hatching, mortality rate was 28% from hatching to 2 weeks of age compared to 14% mortality for the entire incubation period in Florida (Jenni 1969b). Variable nesting success is reported among studies and years, but no information is available for New York. No information is available on lifetime reproductive success.

## **VI. Threats** *(from NY 2015 SWAP or newly described):*

Degradation of breeding and foraging habitat is the greatest threat to little blue herons (McCrimmon 2006). Specific threats include flooding, development, disturbance of nesting areas by human activity such as boating, fishing, dredge spoil deposition, and predation primarily by gulls, fox, and raccoons (Rodgers and Smith 1995, New York Natural Heritage Program 2009, Harbor Herons Subcommittee 2010).

Asian long-horned beetle (*Anoplophora glabripennis*) was discovered on Prall's Island in the Arthur Kill in 2001. Efforts to eradicate this invasive insect failed (Harbor Herons 2010). Non-native invasive plants also create an interesting issue for nesting herons. Although some species including bittersweet, porcelain berry, and kudzu provide attractive nesting structure for herons, their presence degrades the overall quality of the nesting habitat.

Heavy metal and organic contaminants in the water and sediments are picked up by fish, which are eaten by heron, egrets, and ibis. Monitoring the contaminant landscape and reversing contamination of the waterways is key. A study (on-going) by Elbin at NYC Audubon shows that there is a contaminant gradient across the NY Harbor, with the East River/Western Long Island sound having the greatest load and the lower, outer harbor having the lowest. These compounds are detected in herring gull eggs (gulls as bioindicators). Samples were collected post-Super Storm Sandy and are currently being analyzed. Productivity assessment should accompany the contaminants study.

Coastal areas are expected to be affected by predicted sea level rise associated with climate change. In an assessment of vulnerability to predicted climate change conducted by the New York Natural Heritage Program, little blue heron was identified as a second-priority species whose sensitivity should be assessed in the future (Schlesinger et al. 2011).

<b>Threat Level 1</b>	<b>Threat Level 2</b>	<b>Threat Level 3</b>	<b>Spatial Extent</b>	<b>Severity</b>	<b>Immediacy</b>	<b>Trend</b>	<b>Certainty</b>
1. Residential and Commercial	-	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
6. Human Intrusions & Disturbance	6.1 Recreational Activities	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
7. Natural System Modifications	7.3 Other Ecosystem Modifications	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
8. Invasive & Other Problematic Species	-	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
9. Pollution	9.3 Agricultural & Forestry Effluents	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
11. Climate Change	-	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

**Table 1.** Threats to little blue heron.

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

Yes: ✓

No: \_\_\_\_\_

Unknown: \_\_\_\_\_

**If yes, describe mechanism and whether adequate to protect species/habitat:**

The little blue heron is protected under the Migratory Bird Treaty Act of 1918. The Tidal Wetlands Act provides protection for all tidal wetlands under Article 25 of the NYS Conservation Law.

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

Protection and restoration of current nesting areas is important. At some colonies, additional posting and boundary setting, accompanied by public environmental education, would be helpful. Control of mammalian predators, particularly raccoons, may be required at some sites.

NYC Audubon recommends: “continued monitoring of wader populations through nesting surveys and banding is a necessary step to comprehend species status, population trends, and overall health and persistence of the system” (Craig 2012). The Harbor Herons Conservation Plan (2010) provides recommendations for addressing threats known in the New York-New Jersey Harbor. General recommendations are as follows:

- Set target population size for wading birds, by species, in the greater NY/NJ Harbor
- Set target size for each nesting colony, by species in the greater NY/NJ Harbor
- Monitor breeding colonies annually to determine breeding population size
- Monitor nests in breeding colonies to determine productivity and nest success.
- Monitor wetland habitat availability and use by Harbor Herons in the greater NY/NJ Harbor

Action Category	Action	Description
A.1 Direct Habitat Management	A.1.1 Manage plants, animals, fungi, or bacteria	A.1.1.1 Mechanical management - plants A.1.1.4 Mechanical management - animals
A.1 Direct Habitat Management	A.1.2 Manage non-living habitat components	A.1.2.1 Manage hydrological regimes
A.1 Direct Habitat Management	A.1.3 Mitigate human environmental impact	A.1.3.1 Manage access
B.3 Outreach	B.3.1 Outreach, communication, and distribution	B.3.1.4 Public outreach and information

Action Category	Action	Description
C.6 Design and Plan Conservation	C.6.5 Conservation planning	C.6.5.1 Plan the management of protected areas or sites
C.8 Research and Monitoring	C.8.1 Basic research and status monitoring	C.8.1.1 Field research

**Table 2.** Recommended conservation actions for little blue heron

## VII. References

- BirdLife International. 2017. *Egretta caerulea* (amended version of 2016 assessment). *The IUCN Red List of Threatened Species 2017*: e.T22696944A118857172. <https://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T22696944A118857172.en>. Accessed on 03 January 2024.
- Clapp, R. B., M. K. Klimkiewicz, and J. H. Kennard. 1982. Longevity records of North American birds: Gaviidae through Alcidae. *J. Field Ornithol.* 53:81-124.
- Corwin, K. 2012. NYSDEC SWAP 2015 Species Status Assessment for little blue heron. Prepared on April 23, 2012. Revised December 2014.
- Craig, E. 2011. New York City Audubon’s Harbor Herons Project: 2012 interim nesting survey report. New York City Audubon, New York, NY.
- Craig, E. 2012. New York City Audubon’s Harbor Herons Project: 2012 interim nesting survey report. New York City Audubon, New York, NY.
- Curley, S.R., 2022. New York City Audubon’s Harbor Herons Project: 2022 Nesting Survey Report. New York City Audubon, New York, NY.
- eBird data from 2008-2022. Estimated for 2022. Fink, D., T. Auer, A. Johnston, M. Strimas-Mackey, S. Ligocki, O. Robinson, W. Hochachka, L. Jaromczyk, C. Crowley, K. Dunham, A. Stillman, I. Davies, A. Rodewald, V. Ruiz-Gutierrez, C. Wood. 2023. eBird Status and Trends, Data Version: 2022; Released: 2023. Cornell Lab of Ornithology, Ithaca, New York. <https://doi.org/10.2173/ebirdst.2022>
- Harbor Herons Subcommittee. S. B. Elbin and N.K. Tspoura (Editors). 2010. Harbor Herons Conservation Plan- NY/NJ Harbor Region. NY-NJ Harbor Estuary Program.
- Hopkins, Jr., M. N. 1971. Does the Little Blue Heron breed in the white plumage? *Oriole* 36:30-33.
- Jenni, D. A. (1969). A study of the ecology of four species of herons during the breeding season at Lake Alice, Alachua County, Florida. *Ecological Monographs* 39:245–270.

McCrimmon, D.A. 2006. Species group report for colonial nesting herons. Pages 33-42 of Appendix A-1, Species group reports for birds in: NYS Comprehensive Wildlife Conservation Strategy. NYSDEC, Albany.

NatureServe. 2023. NatureServe Explorer. Page last published 12/1/2023. [https://explorer.natureserve.org/Taxon/ELEMENT\\_GLOBAL.2.106018/Egretta\\_caerulea](https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.106018/Egretta_caerulea). Accessed 1/3/2024.

Neill, W. T. 1949. Little Blue Herons breeding in the juvenile plumage. *Oriole* 14:17-18.

New York Natural Heritage Program. 2009. Biotics database. NYSDEC, Albany.

New York Natural Heritage Program. 2023. Online Conservation Guide for *Egretta caerulea*. Available from: <https://guides.nynhp.org/little-blue-heron/>. Accessed December 20, 2023.

New York State Breeding Bird Atlas III Overview (NYS BBA III Overview). 2023. New York Checklist Overview. <https://ebird.org/atlasny/state/US-NY>. Accessed 1/3/2024.

Rodgers, Jr., J. A. 1978. Display characteristics and frequency of breeding by subadult Little Blue Herons. Pages 35-39 in *Wading birds*. (Sprunt IV, A., J. C. Ogden, and S. Winckler, Eds.) Res. rept. no. 7, Nat. Audubon Soc., New York.

Rodgers, Jr., J. A. 1980. Little Blue Heron breeding behavior. *Auk* 97:371-384.

Rodgers, Jr., J. A. and H.T. Smith. 1995. Little Blue Heron (*Egretta caerulea*), *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/145> doi:10.2173/bna.145

Palmer, R. S. 1962. *Handbook of North American birds*. Vol. 1. Yale Univ. Press, New Haven, CT.

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.

Sommers, L., M. Alfieri, K. Meskill, and R. Miller. 1996. 1995 Long Island colonial waterbird and Piping Plover survey. A Research Report of NYSDEC. Stony Brook, NY.

<b>Originally prepared by</b>	Kimberley Corwin
<b>Date first prepared</b>	April 23, 2012
<b>First revision</b>	December 2014
<b>Latest revision</b>	December 20, 2023 (M. Oberkircher)