

Species Status Assessment

Common Name: Tricolored heron

Date Updated: March 12, 2025

Scientific Name: *Egretta tricolor*

Updated By: M. Oberkircher

Class: Aves

Family: Areidae

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

Tricolored heron breeds in coastal areas along the Gulf and Atlantic coasts, most abundantly in the Gulf states, but occurring as far north as southern Maine. In New York, this heron breeds in small numbers alongside other waterbirds, using islands with small trees and shrubs for nesting, and nearby wetlands for foraging. Tricolored heron was first recorded breeding in New York in 1955 and numbers increased through the mid-1980s. In 2010, there were 10 breeding pairs at 4 sites; this number is more than 50% below the average number of pairs documented from 1985 to 1996. In New York Harbor, this species has consistently nested at low numbers since 1985.

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:

New York is near the northern limit of the tricolored heron range. Tricolored heron is an uncommon breeder on Long Island and in the New York-New Jersey Harbor, and an uncommon summer visitant. It is rare elsewhere in the state during spring and summer.

Tricolored heron is extirpated in Massachusetts. It is ranked as Critically Imperiled in Connecticut and as Vulnerable in New Jersey.

II. Abundance and Distribution Trends

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
North America	Yes	Declining	Declining			-
Northeastern US	Yes	Unknown	Unknown		Watchlist	No
New York	Yes	Stable	Stable	2013-2022		Yes
Connecticut	Yes	Unknown	Unknown			No
Massachusetts	No	-	-			No
New Jersey	Yes	Increasing	Stable	2015-2021		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):

Surveys are conducted every three years during the NYSDEC's Colonial Waterbird Survey. New York City Audubon has conducted the Harbor Herons Nesting Survey in the Greater NY/NJ Harbor annually since 1985; the surveys target long-legged wading birds including tricolored heron. Nesting surveys traditionally have been conducted at 17 islands; aids to navigation and mainland sites have been included recently (Harbor Herons Subcommittee 2010, Craig 2011, Craig 2012).

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

Populations of tricolored heron in New York are small and the number of breeding pairs has declined since the 1980s. The tricolored heron was first sighted in New York during the 1830s. The species first bred in New York in 1955 at the Jamaica Bay Wildlife Refuge but breeding was not discovered again until 1971. Buckley and Buckley (1980) reported an average of 13 pairs breeding at 5 locations from 1974 to 1978. Regular surveys from 1985 to 1996 recorded an average of 22 pairs; there was a low of 8 pairs in 1993 and a high of 26 pairs in 1996 (Sommers et al. 1996).

Long Island Colonial Waterbird surveys—conducted every three years for herons—counted 12 pairs in 2001, nine pairs in 2004, five pairs in 2007, and 10 pairs in 2010. In 2022, five pairs were found nesting at one site.

The NYC Audubon Harbor Heron survey documented a stable, low-level presence of nesting birds annually since 1985 in the Greater NY/NJ Harbor (Harbor Herons Subcommittee 2010, Craig

2011, Craig 2012). No tricolored herons were found nesting in 2019-2022 in NY Harbor, one pair nested in 2018.

Tricolored heron is most numerous in Florida and Louisiana. Populations in Florida have declined since the 1970s, resulting in its listing there as a Species of Special Concern.

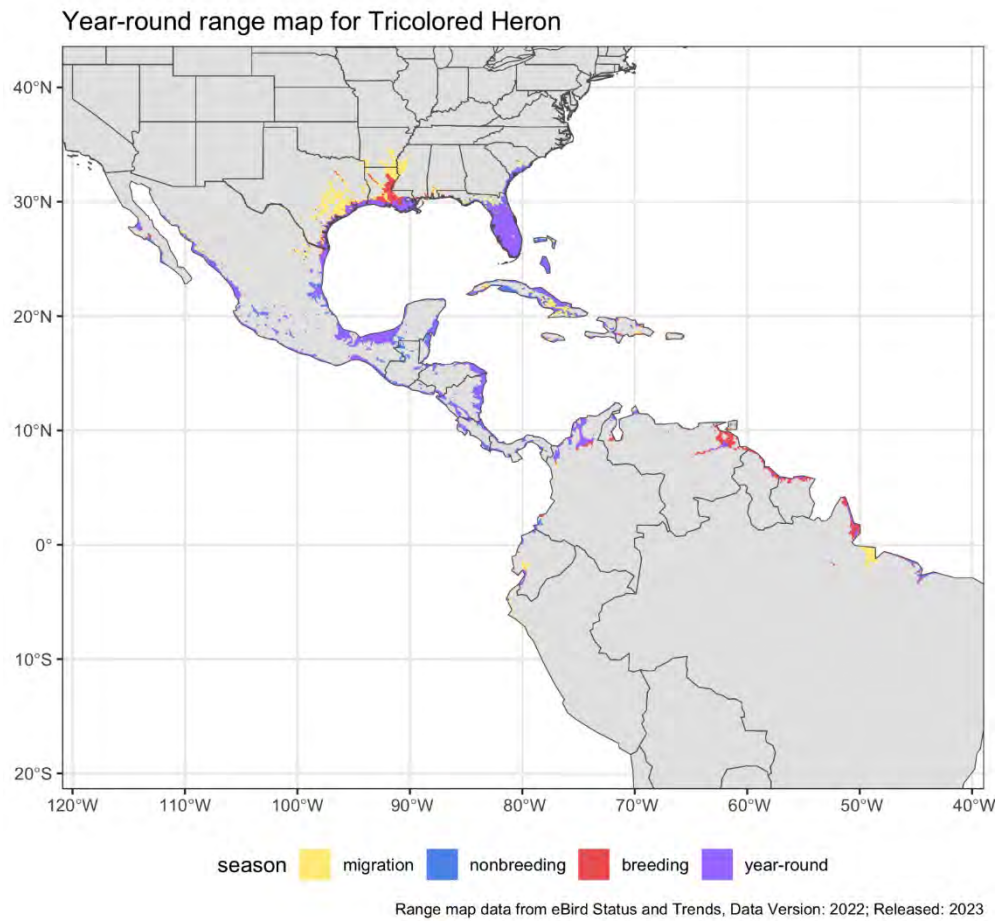


Figure 1. Full (year-round) range for tricolored heron (eBird 2022).

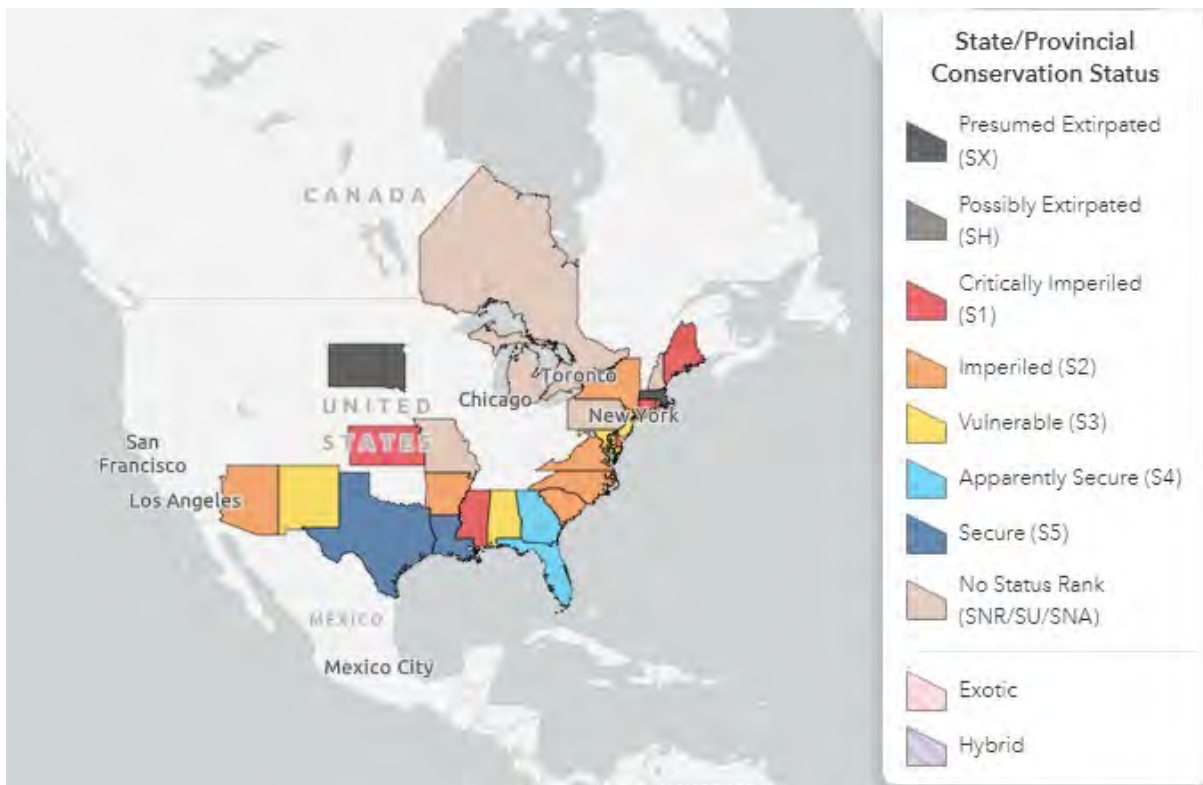
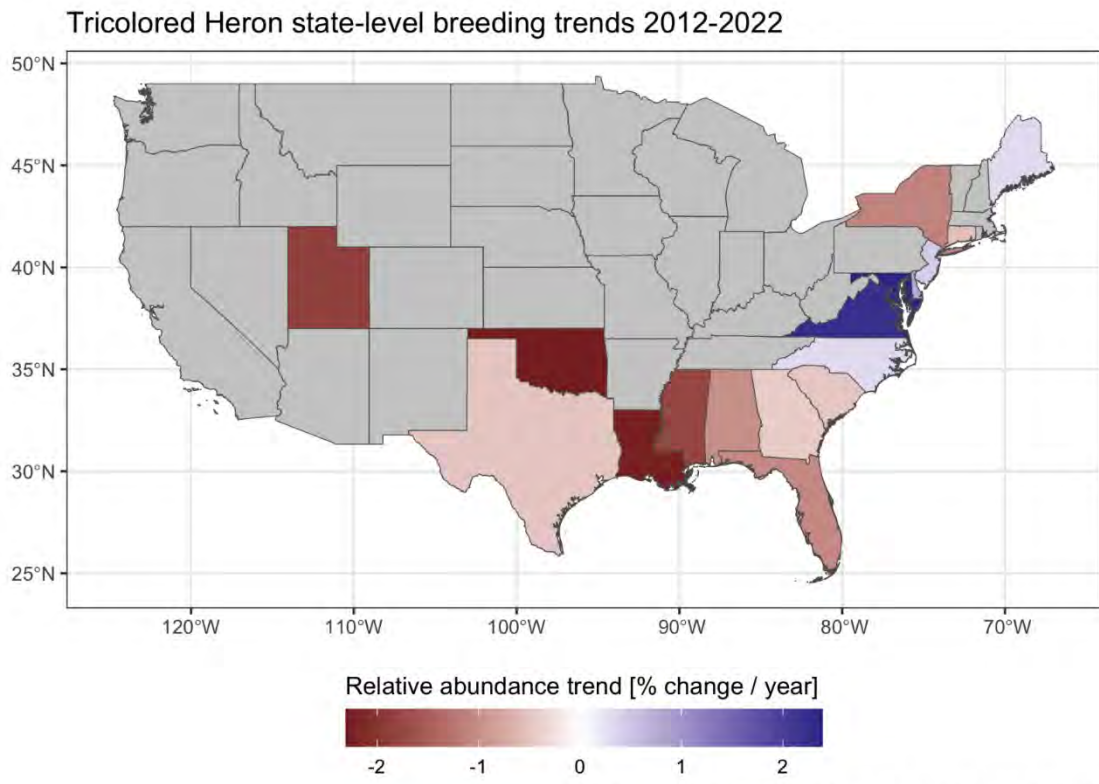


Figure 2. Conservation status of tricolored heron in North America (NatureServe)



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

Figure 3. Trends, by state, for tricolored heron

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

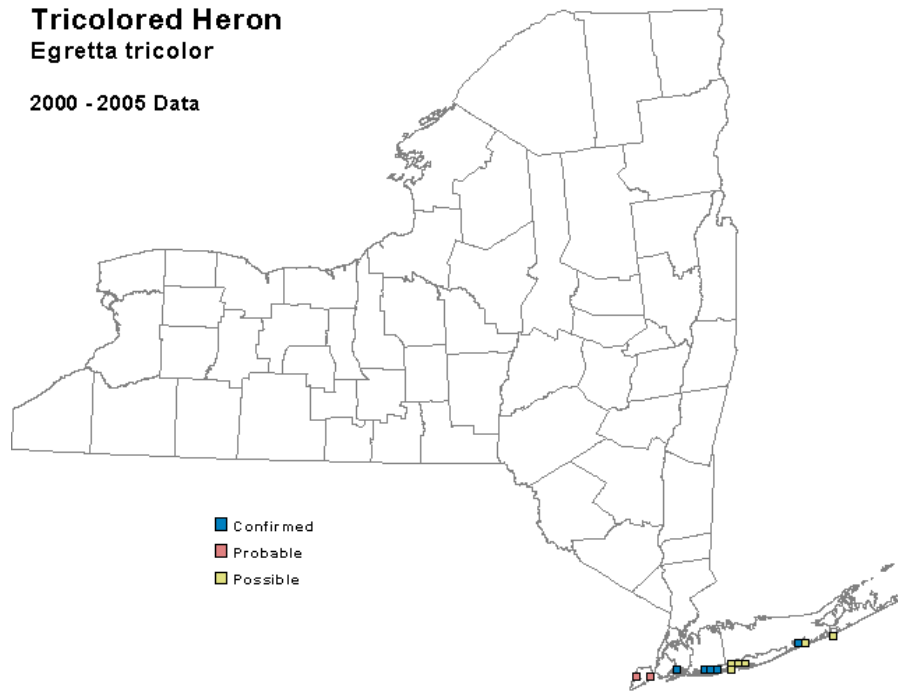


Figure 4. Tricolored heron occurrence in New York State during the second Breeding Bird Atlas (McGowan and Corwin 2008)

Details of historic and current occurrence:

The first Breeding Bird Atlas (BBA) (1980-85) documented occupancy in 11 blocks, 0.2% of the survey blocks statewide (Andrle and Carroll 1988). The second BBA (2000-05) documented occupancy in 13 blocks, 0.2% 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, tricolored heron has been documented in 5 priority blocks, 0.1% 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. Estuarine, Brackish Intertidal, Tidal Wetland, Low Marsh
3. Estuarine, Brackish Intertidal, Benthic Geomorphology, Tidal Flat
4. Estuarine, Freshwater Intertidal, Tidal Wetland, Freshwater Tidal Marsh

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:

Tricolored herons typically breed in colonies with other heron species and are generally found in brackish and salt water coastal areas, marshes, swamps, and mud flats (Bull and Farrand 1977). Generally, breeds on islands or areas of higher ground that support small trees or shrubs, surrounded by open water or inundated wetland vegetation. Niche partitioning among tricolored herons, snowy egrets and little blue herons in marine habitat may result from differences in prey type and size, though these species show significant differences in use of foraging habitat; tricolored heron is more common in open water and pools (Kent 1986a, 1986b).

In New York, tricolored herons utilize the coastal salt marsh scrub/shrub islands along the southern coast of Long Island; nesting in dense thickets or in trees and foraging in shallow estuaries and bays (New York Natural Heritage Program 2009).

V. Species Demographic, and Life History:

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

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):

First breeding is presumed to be during second spring. One brood is produced each year; unsuccessful clutches will be replaced if failure occurs early enough in the season. Second clutches are likely to be uncommon. Typically, 1–2 young survive to fledging from a successful breeding attempt. Rate of survival from hatching to independence is 67.7% (Frederick et al. 1993); from 21 d to independence, 28.6% (Bancroft and Jewell 1987). Predation of eggs and young can be major source of mortality.

May be site-faithful to breeding areas between years as long as there is no history of nesting failure (Bancroft et al. 1994). May switch colonies in local areas within and between nesting

seasons (Bancroft and Jewell 1987). The longevity record in the wild 17 years and 8 months (Clapp et al. 1982).

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

Currently, the greatest threat to the tricolored heron is habitat loss and degradation together with disturbance of nesting colonies, which are primarily in urban areas. Significant correlations have been found between coastal breeding abundance and amount of wetland area by state along the Atlantic Coast (Custer et al. 1980b). 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, crows, and raccoons (Harbor Herons 2010). Small numbers of breeding pairs in few colonies make the species susceptible to stochastic events such as storms.

Asian long-horned beetle (ALB, *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, porcelainberry, and kudzu provide attractive nesting structure for herons, their presence degrades the overall quality of the nesting habitat. Verminous peritonitis from the nematode *Eustrongylides ignotus* is known to have effects at the population level. A single parasite can cause nestlings to die within a day, usually from hemorrhage and secondary bacterial infection.

Coastal areas are expected to be affected by predicted sea level rise associated with climate change. Hurricanes, common within much of the range of this bird, damage colonies and cause abandonment. The population in Chesapeake Bay appears to be limited by availability of nesting islands which are being rapidly lost to sea level rise (Erwin et al. 2010). In an assessment of vulnerability to predicted climate change conducted by the New York Natural Heritage Program, tricolored heron was identified as a second-priority species whose sensitivity should be assessed in the future (Schlesinger et al. 2011).

Threat Level 1	Threat Level 2	Threat Level 3	Spatial Extent	Severity	Immediacy	Trend	Certainty
1. Residential and Commercial	1.1 Housing & Urban Areas	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
6. Human Intrusions & Disturbance	-	-	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.
11. Climate Change	-	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Table 1. Threats to Tricolored 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 tricolored 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:

The protection of colony sites from disturbance, the management of colony sites to avoid degradation, the creation of new and replacement colony sites (such as by dredge spoil deposition), the identification, protection, and appropriate management of feeding areas, and the management of crayfish aquaculture in Louisiana are important conservation actions for this species.

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 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 Direct habitat management	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.1.2.4 Manage erosion and sedimentation
A.1 Direct Habitat Management	A.1.3 Mitigate human environmental impact	A.1.3.1 Manage access

Action Category	Action	Description
B.3 Outreach	B.3.1 Outreach, communication, and distribution	B.3.1.4 Public outreach and information
C.6 Design and Plan Conservation	C.6.2 Conserve specific land or seascapes	
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 monitoring	C.8.1.1 Field research

Table 2. Recommended conservation actions for tricolored heron

VII. References

Bancroft, G. T. and S. D. Jewell. 1987. Foraging habitat of Egretta herons relative to stage in the nesting cycle and water conditions. Second Annual Report. South Florida Water Management District, West Palm Beach, FL.

Bancroft, G. T., A. M. Strong, R. J. Sawicki, W. Hoffman, and S. D. Jewell. 1994. Relationships among wading bird foraging patterns, colony locations, and hydrology in the Everglades. Pages 615-687 in Everglades: the ecosystem and its restoration. (Davis, S. and J. C. Ogden, Eds.) St. Lucie Press, Del Ray Beach, FL.

BirdLife International (2024) Species factsheet: *Egretta tricolor*. Downloaded from <http://datazone.birdlife.org/species/factsheet/tricolored-heron-egretta-tricolor> on 23/01/2024. Recommended citation for factsheets for more than one species: BirdLife International (2024) IUCN Red List for birds. Downloaded from <http://datazone.birdlife.org> on 23/01/2024.

Clapp, R. B., M. K. Klimkiewicz, and J. H. Kennard. 1982. Longevity records of North American birds: Gaviidae through Alcidae. J. Field Ornithol. 53:81-208.

Corwin, K. 2012. NYSDEC SWAP 2015 Species Status Assessment for tricolored heron. Prepared on July 25, 2012. Revised by S. Hoff January 2014.

Craig, E. 2011. New York City Audubon's Harbor Herons Project: 2011 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.

Custer, T. W., R. G. Osborn and W. F. Stout. (1980b). Distribution, species abundance and nesting-site use of Atlantic Coast colonies of herons and their allies. Auk 97:591-600.

- 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>
- Frederick, P. C. 1997. Tricolored Heron (*Egretta tricolor*), 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/306> doi:10.2173/bna.306
- Frederick, P. C., M. G. Spalding, and G. V. N. Powell. 1993. Evaluating methods to measure nestling survival in Tricolored Herons. *J. Wildl. Manage.* 57:34-41.
- Harbor Herons Subcommittee. S. B. Elbin and N.K. Tsipoura (Editors). 2010. Harbor Herons Conservation Plan- NY/NJ Harbor Region. NY-NJ Harbor Estuary Program.
- Kent, D. M. 1986a. Behavior, habitat use, and food of three egrets in a marine habitat. *Colon. Waterbirds* 9:25-30.
- Kent, D. M. 1986b. Foraging efficiency of sympatric egrets. *Colon. Waterbirds* 9:81-85.
- NatureServe. 2023. NatureServe Explorer. Page last published 1/5/2024. https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.102427/Egretta_tricolor. Accessed 1/23/2024.
- New York Natural Heritage Program. 2009. Biotics Database. New York State Department of Environmental Conservation. Albany, NY.
- New York Natural Heritage Program. 2024. Online Conservation Guide for *Egretta tricolor*. Available from: <https://guides.nynhp.org/tricolored-heron/>. Accessed January 23, 2024.
- New York State Breeding Bird Atlas III Map (NYS BBA III Map). 2023. <https://ebird.org/atlasny/explore>. Accessed 1/23/2024.
- 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.
- Spendelow, J. A. and S. R. Patton. 1988. National Atlas of Coastal Waterbird Colonies in the Contiguous United States: 1976-1982. U.S. Fish and Wildlife Service, Biological Report 88(5). x + 326 pp.
- Watson, W. 2001. Upstate New York's first great egret colony. *Kingbird* 51(3):648-60.