Species Status Assessment

Common Name: Forster's tern **Date Updated:** February 28, 2025

Scientific Name: *Sterna fosteri* **Updated By:** M. Oberkircher

Class: Aves

Family: Laridae

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

A "marsh tern," this species breeds primarily in fresh, brackish, and saltwater marshes. Forster's tern is the only tern restricted almost entirely to North America throughout the year (McNicholl, et al. 2020) It was first recorded breeding in New York in 1981 on Hewlett Hassock in Nassau County and the first Breeding Bird Atlas (1980-85) documented a single breeding pair in 1984. By the second Breeding Bird Atlas in 2000-05, Forster's tern was confirmed breeding in 8 survey blocks. In 2022, Long Island Colonial Waterbird surveys documented 536 pairs at 12 sites. Forster's tern winter further north than any other tern species.

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:** S1 **Tracked by NYNHP?:** Yes

Other Ranks:

-NYS 2025 SGCN Status: Species of Greatest Conservation Need

-IUCN Red List: Least Concern

-Partners in Flight: 13 out of 20

Status Discussion:

This species was recently established (1981) as a breeder in salt marshes on the south shore of Long Island where it is now locally common. Still rare in spring on Long Island away from breeding areas; rare to uncommon spring migrant on the Great Lakes; locally common fall migrant on the coast, and locally uncommon to fairly common fall migrant on the Great Lakes and lower Hudson River; rare on other upstate lakes; casual in winter. Forster's tern is ranked as Critically Imperiled in New York and in Massachusetts. It is ranked as Apparently Secure in New Jersey.

II. Abundance and Distribution Trends

Region	Present?	Abundance	Distribution	Time Frame	Listing status	SGCN?
North America	Yes	Increasing	Stable			No
Northeastern US	Yes	Unknown	Unknown		Watchlist	No
New York	Yes	Increasing	Stable			Yes
Connecticut	No	-	-			No
Massachusetts	Yes	Unknown	Unknown			No
New Jersey	Yes	Unknown	Unknown			No
Pennsylvania	No	-	-			No
Vermont	No	-	-			No
Ontario	Yes	-	-			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):*

Forster's tern is surveyed for annually during the Long Island Colonial Waterbird Survey.

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

New York's first pair of Forster's terns was documented in 1981 at Hewlett Hassock, Nassau County (Zarudsky 1981). The first confirmed breeding was documented in 1985 at North Green Sedge Island, Nassau County (Peterson et al. 1985). Terns started nesting in a larger colony of 53 pairs at JoCo marsh in Jamaica Bay in 1992. The population has greatly expanded since then, with 536 pairs being recorded at 12 sites all in the Town of Hempstead, Nassau County during the Long Island Colonial Waterbird survey in 2022.

The USGS breeding bird survey shows a trend of -0.9 while Christmas Bird Count data shows a slightly positive trend of 0.18 a year from 1993-2021 for Forster's tern. The eBird trends map for this species shows a -14.6% decline with an upper confidence interval of 4.3% and a lower interval of -27% in New York.

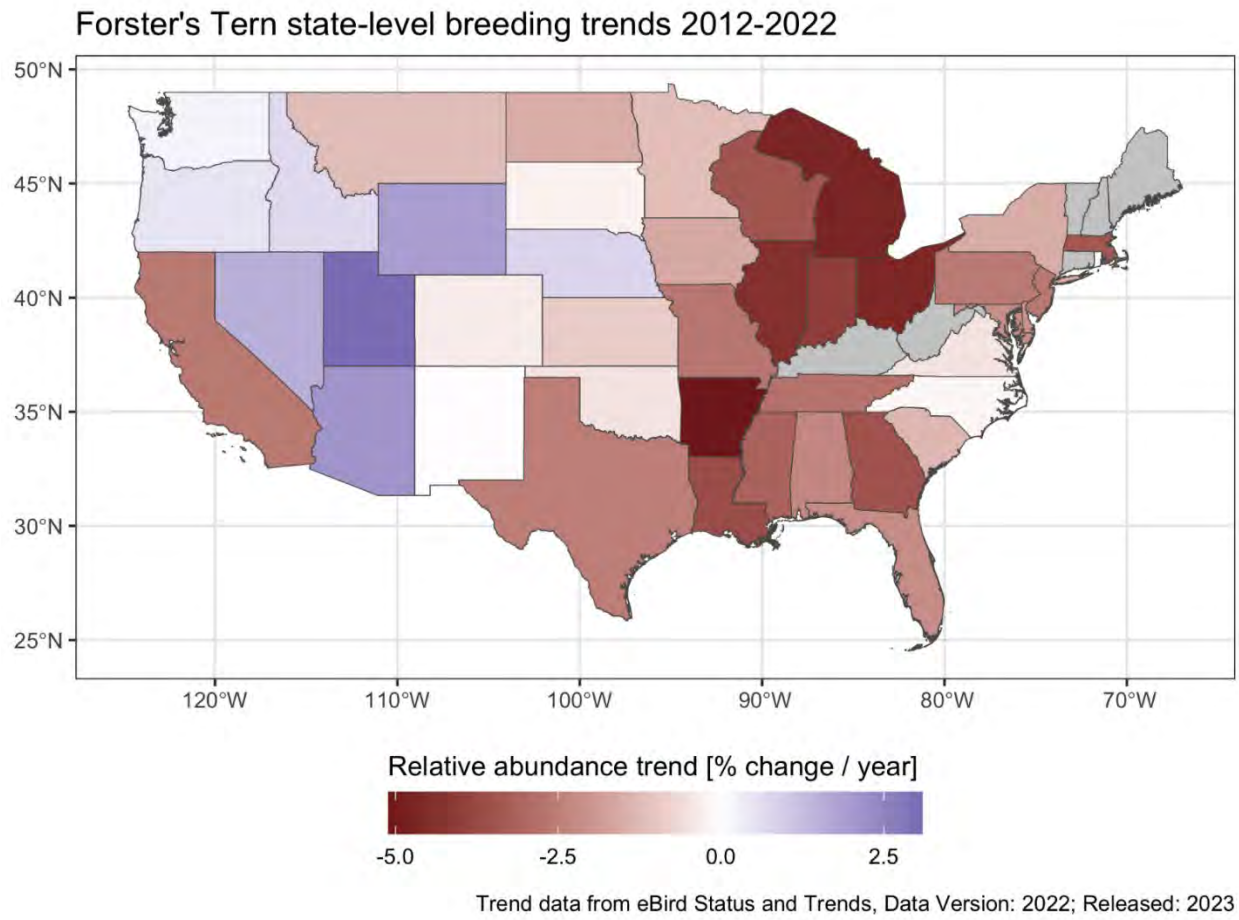

Figure 1 : Trends, by state, for Forster's tern (eBird).

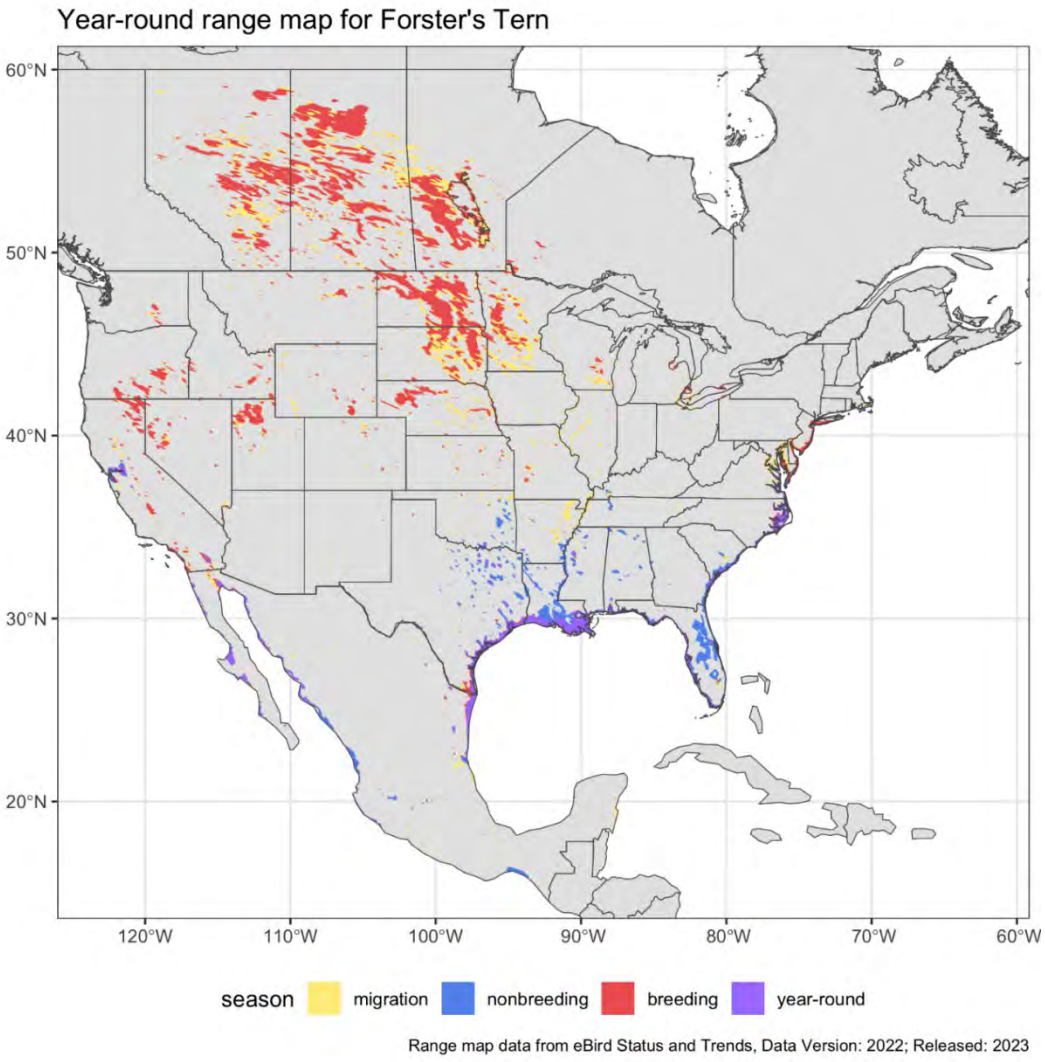

Figure 2. Full (year-round) range for Forster's tern (eBird).

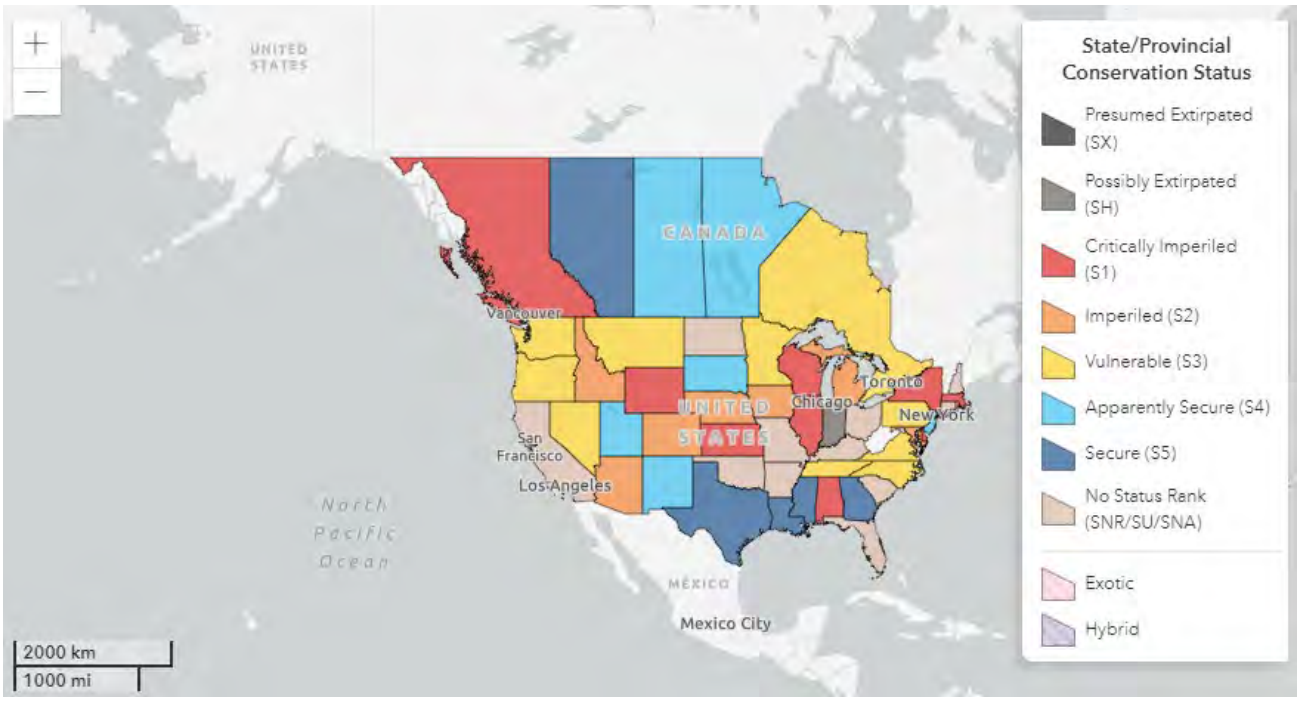

Figure 3. Conservation status of Forster's tern in North America (NatureServe).

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

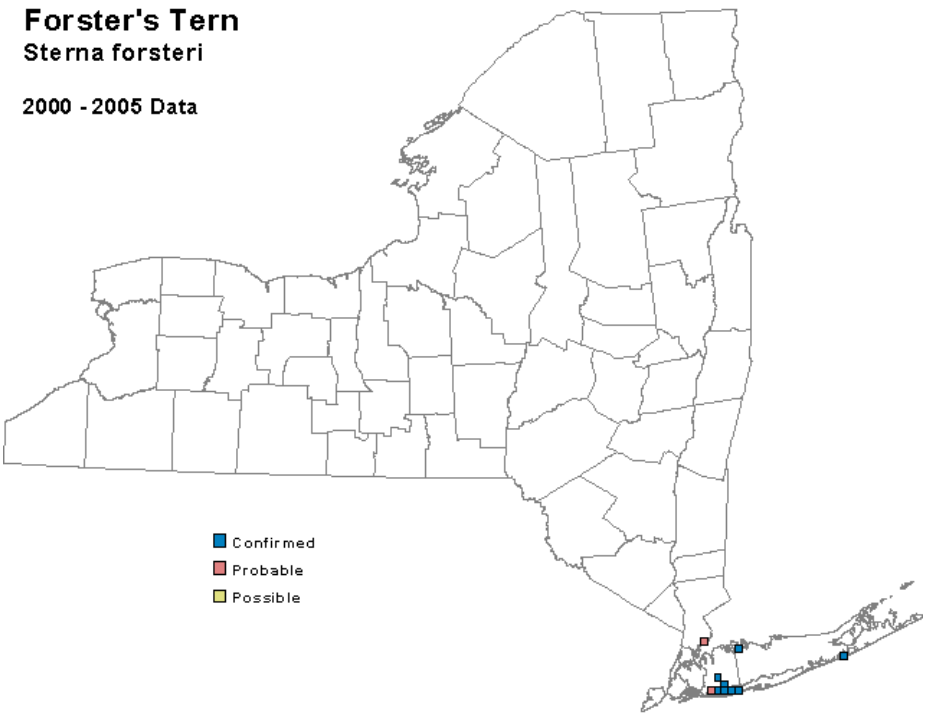

Figure 4. Forster's tern occurrence in New York State during the second Breeding Bird Atlas (McGowan and Corwin 2008).

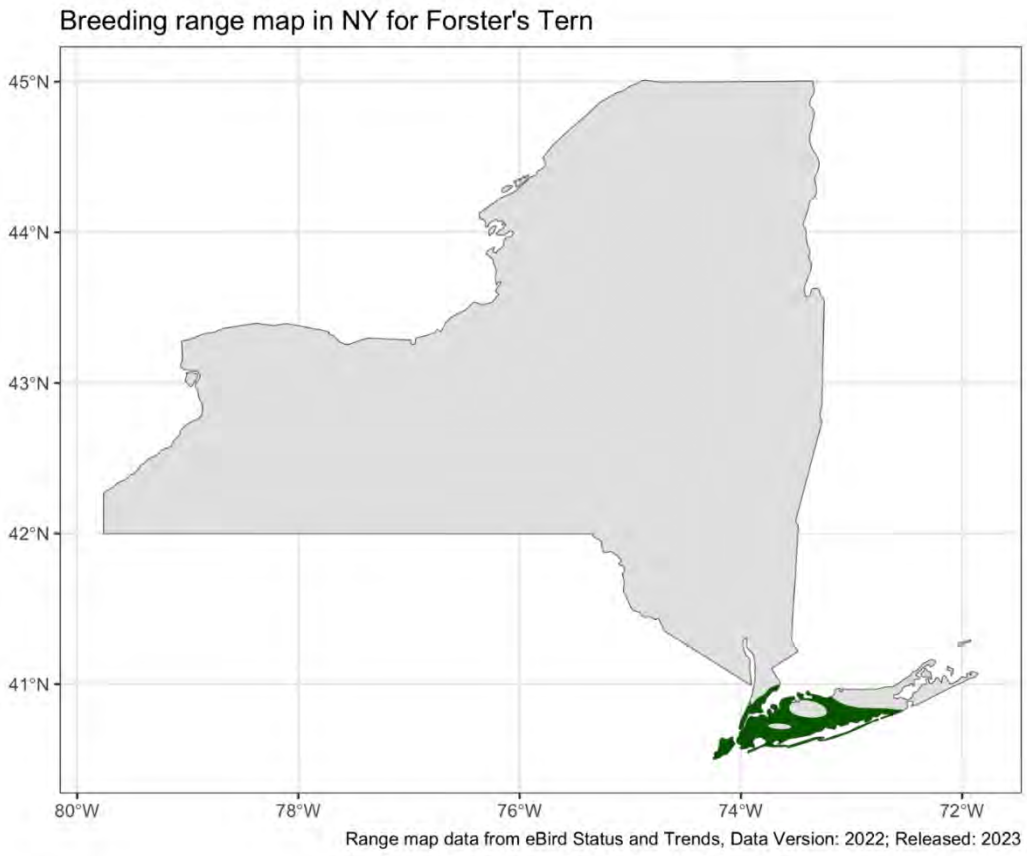

Figure 5. NYS breeding range for Forster's tern (eBird).

Details of historic and current occurrence:

The first Breeding Bird Atlas (BBA) (1980-85) documented occupancy in 2 blocks, 0% of the survey blocks statewide (Andrle and Carroll 1988). The second BBA (2000-05) documented occupancy in 10 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, Forster's tern has been documented in 58 priority blocks, 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, High Marsh
3. Maritime Dunes

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:

A "marsh tern," this species breeds primarily in fresh, brackish, and saltwater marshes, including marshy borders of lakes, islands, or streams. It is found more often in open, deeper portions of marshes, generally in wetlands with considerable open water and large stands of island-like vegetation and/or large mats of floating vegetation. Nesting frequently occurs on storm-deposited wrack material that accumulates within stands of cordgrass during winter storms and high-tide events (Martin and Zwank 1987). This material is useful because it is elevated higher than the usual high-water line and may float during floods (McGowan and Corwin 2008).

In New York, Forster's Terns nest on marsh islands located in bays off the south shore of Long Island (Connor 1988b, McGowan and Corwin 2008, Sommers et al. 2001).

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	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 may be when ≥2 yr old; probably breeds annually thereafter, but no specific evidence (McNicholl, et. al. 2020). No information on lifetime reproductive success. Limited information available for breeding success at colonies. Productivity at a colony for any particular year may vary from 0 to 1.9 eggs hatching/nest; 0 to 1.6 young fledged/nest; survival of young difficult to determine after young leave nest at age 4 d. Reproductive success for a particular location can be quite variable from year to year and is often dependent on weather and water levels. Maximum reported longevity is 15 years and 10 months.

Marsh colonies shift rapidly with changes in habitat suitability through changes in water level or vegetative growth but recolonize when areas become suitable again. Strong ability to colonize newly created marsh-like habitats (Mossman 1989).

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

A combination of factors may contribute to the dramatic declines of coastal salt marsh observed on Long Island over the last 50 years (Hartig 2002). Sea-level rise and increased storms and flooding due to global climate change are a threat to the salt marsh habitat that Forster's terns require for nesting. Changes to hydrologic processes resulting from coastal development coupled with increases in sedimentary sulfide associated with human development are also believed to play primary roles in the decline of coastal salt marsh (Montalto and Steenhuis 2004, Kolker 2005).

Recreational boaters driving at high speeds or anchoring near salt marsh islands may disrupt terns from parental care of eggs and chicks, leaving them vulnerable to predation. Mortality due to hypothermia has been reported when young chicks fled to the water in response to observers near nesting locations (Hall 1989, Fraser 1994). Habitat loss due to erosion, fragmentation by ditching, and conversion of Spartina marsh into other vegetative types, especially invasive plants such as Phragmites, are threats to all salt-marsh breeding birds. Forster’s tern is thought to be able to adapt to remaining available habitat or shift to other habitat types such as beaches, or man-made structures and rooftops.

Threat Level 1	Threat Level 2	Threat Level 3	Spatial Extent	Severity	Immediacy	Trend	Certainty
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	7.3.1 Shoreline alteration	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
8. Invasive & Other Problematic Species	8.2 Problematic Native Plants & Animals	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
9. Pollution	9.3 Agricultural & Forestry Effluents	9.3.3 Herbicides & pesticides	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
11. Climate Change	11.1 Habitat Shifting & Alteration	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
11. Climate Change	11.5 Storms & Severe Weather	11.5.2 Storm surges	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Table 1. Threats to Forster's tern.

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:

Forster's tern is protected under the Migratory Bird Treaty Act.

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

Management for Forster's Terns requires both the protection of existing colonies to enable populations to perpetuate and grow, and the restoration and protection of habitat for terns to move into as populations expand or disturbed colonies need to relocate. Coordinated and specific habitat management and restoration projects should be developed for identified focus areas. Identify strategies and develop a plan for slowing the loss of emergent tidal salt marsh to erosion, fragmentation, and invasive species.

Managing predators may be effective in certain circumstances where nest predation is high as has been effective for other tern species (Molina et al. 2010). Posting educational signs just prior to the nesting season has been an effective method at limiting human disturbance to colonies of other tern species on beaches (Burger 1989).

Action Category	Action	Description
A.1 Direct Habitat Management	A.1.1 Manage plants, animals, fungi, or bacteria	A.1.1.4 Mechanical management - animals
A.1 Direct Habitat Management	A.1.3 Mitigate human environmental impact	A.1.3.1 Manage access
A.1 Direct Habitat Management	A.1.2 Manage non-living habitat components	A.1.2.4 Manage erosion and sedimentation A.1.2.5 Manage structural habitat elements
B.3 Outreach	B.3.1 Outreach, communication, and distribution	B.3.1.4 Public outreach and communication
C.6 Design and Plan Conservation	C.6.4 Conserve via zoning or informal designations	C.6.4.1 Designate informal conservation areas (not legally binding) C.6.4.2 Designations and restrictions to prevent habitat degradation or conversion
C.6 Design and Plan Conservation	C.6.5 Conservation planning	C.6.5.1 Plan the management of protected areas or sites

Table 2. Recommended conservation actions for Forster's tern

VII. References

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