

Species Status Assessment

Common Name: Ruddy Turnstone **Date Updated:** 2024-12-20
Scientific Name: *Arenaria interpres* **Updated By:** Tgh
Class: Aves
Family: Scolopacidae

Species Synopsis

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

Ruddy turnstone breeds in the high arctic tundra. There are two subspecies, *A. i. interpres* and *A. i. morinella*. Both species occur in North America, with *A. i. morinella* overwintering in the southern portion of the Atlantic Gulf coast, and *A. i. interpres* overwintering further north on the Atlantic Coast, including New York (Nettleship 2020). In New York, it is an abundant spring and fall migrant, and may also occur inland during migration. Numbers of ruddy turnstone in North America have declined since the 1970s, but are now thought to be stable or increasing in the Northeast since 1980 (Butcher and Niven 2007, Andres 2009, Nettleship 2020). Turnstones and other shorebirds are at considerable risk of population declines due to rapid loss of critical resources at coastal-stopover locations during migration and in wintering areas.

I. Status

a. Current legal protected Status

i. Federal: Not listed

Candidate:

ii. New York: Not listed: protected native

b. Natural Heritage Program

i. Global: G5

ii. New York: SNRN

Tracked by NYNHP?

Other Ranks:

New York 2025 SGCN status: Species of Greatest Conservation Need

COSEWIC: Not listed in Canada

IUCN Red List: Near Threatened

Northeast Regional SGCN: Watchlist [Assessment Priority]

U.S. Shorebird Conservation Plan-Conservation Category: Species of High Concern

Status Discussion:

Ruddy turnstone is a migrant in New York, becoming abundant in spring and fall, and remaining common during the winter. It is a regular summering nonbreeder as well. Inland, ruddy turnstone can be common at larger bodies of water such as the Great Lakes, though more so in the fall.

II. Abundance and Distribution Trends

Region	Present ?	Abundance	Distribution	Time Frame	Listing status or S-Rank	SGCN?
North America	Yes	Stable	Unknown	Unknown for US		
Northeastern US	Yes	Unknown	Unknown	Unknown		Watchlist [Assessment Priority]
New York	Yes	Unknown	Unknown	Unknown		Yes
Connecticut	Yes	Unknown	Unknown	Unknown	SNA	Yes
Massachusetts	Yes	Unknown	Unknown	Unknown	S4N	Yes
New Jersey	Yes	Unknown	Unknown	Unknown	SC; S3N	Yes
Pennsylvania	Yes	Unknown	Unknown	Unknown	S2M	
Vermont	Yes	Unknown	Unknown	Unknown	SNA	
Ontario	Yes	Unknown	Unknown	Unknown	S4M	
Quebec	Yes	Unknown	Unknown	Unknown	S3M	

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):

Trends Discussion

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

Few statistically meaningful data sets are available for trend analysis of North American populations (Nettleship 2000). Andres (2009) analyzed Christmas Bird Count data and Breeding Bird Survey data together with regional sources and assigned ruddy turnstone a score of “apparently stable.”

Christmas Bird Count data for New York from 2009 to 2021 suggest a slight decrease.

Trend analysis of ruddy turnstone numbers at 56 U.S. Atlantic coastal-stopover sites during fall migration indicate substantial declines between 1972 and 1983 (mean annual percentage of change -8.5, or -62.4% cumulative change), though not statistically significant due to high variation within and between years (Howe et al. 1989).

Gratto-Trevor et al. (2011) report that number of ruddy turnstone migrating through the Atlantic Canadian provinces from 1974 to 2006 has declined by 2.8% per year for a total decline of 59.7% over the period.

The global population trend is decreasing, although some populations have unknown trends (Wetlands International 2006).

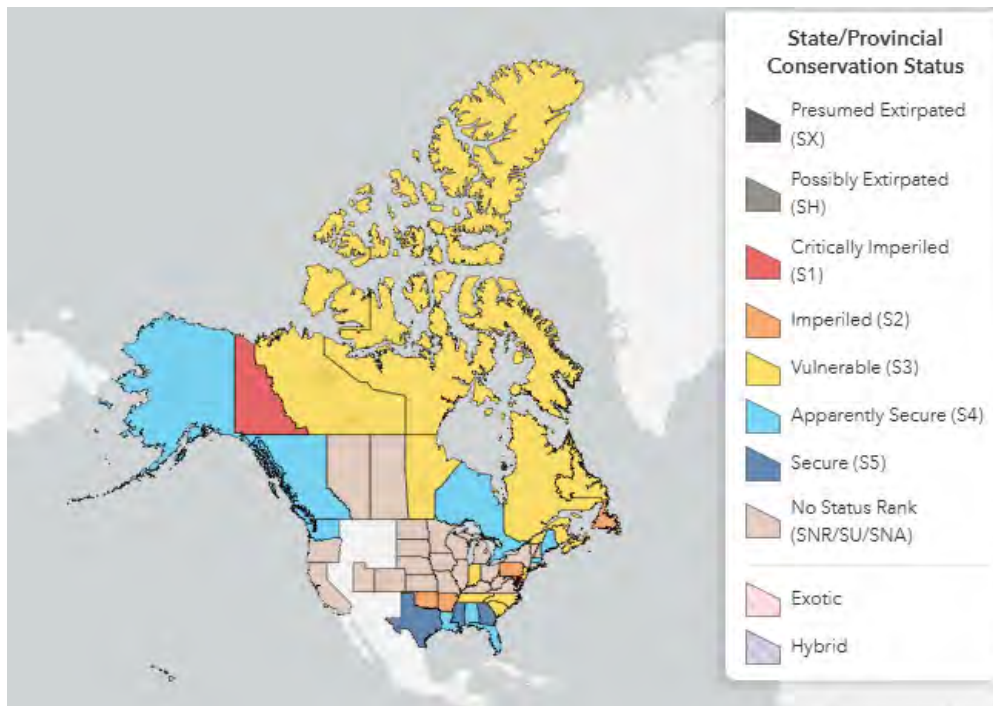


Figure 1. Conservation status of ruddy turnstone in North America (NatureServe 2025).

Breeding range map for Ruddy Turnstone

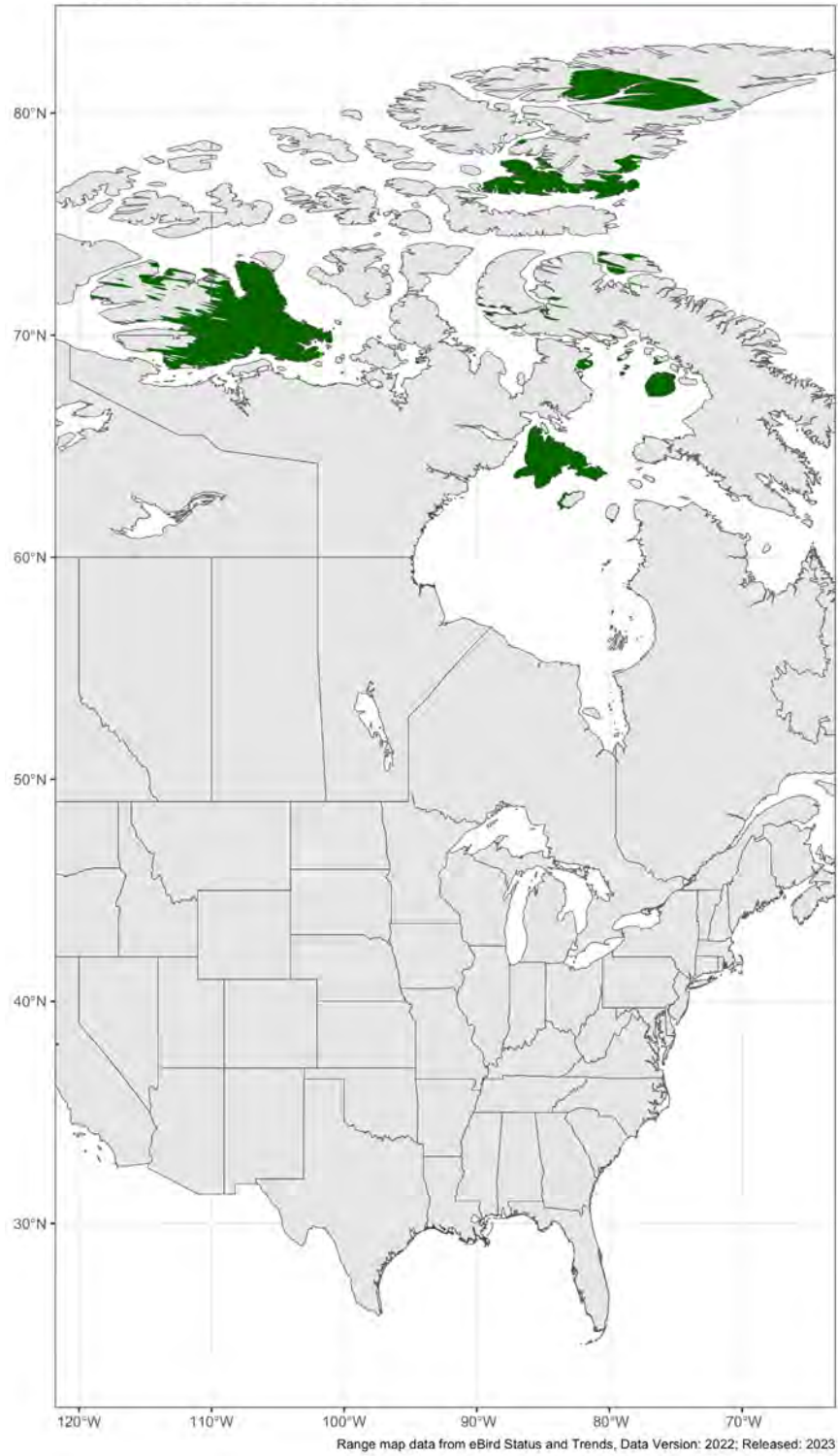
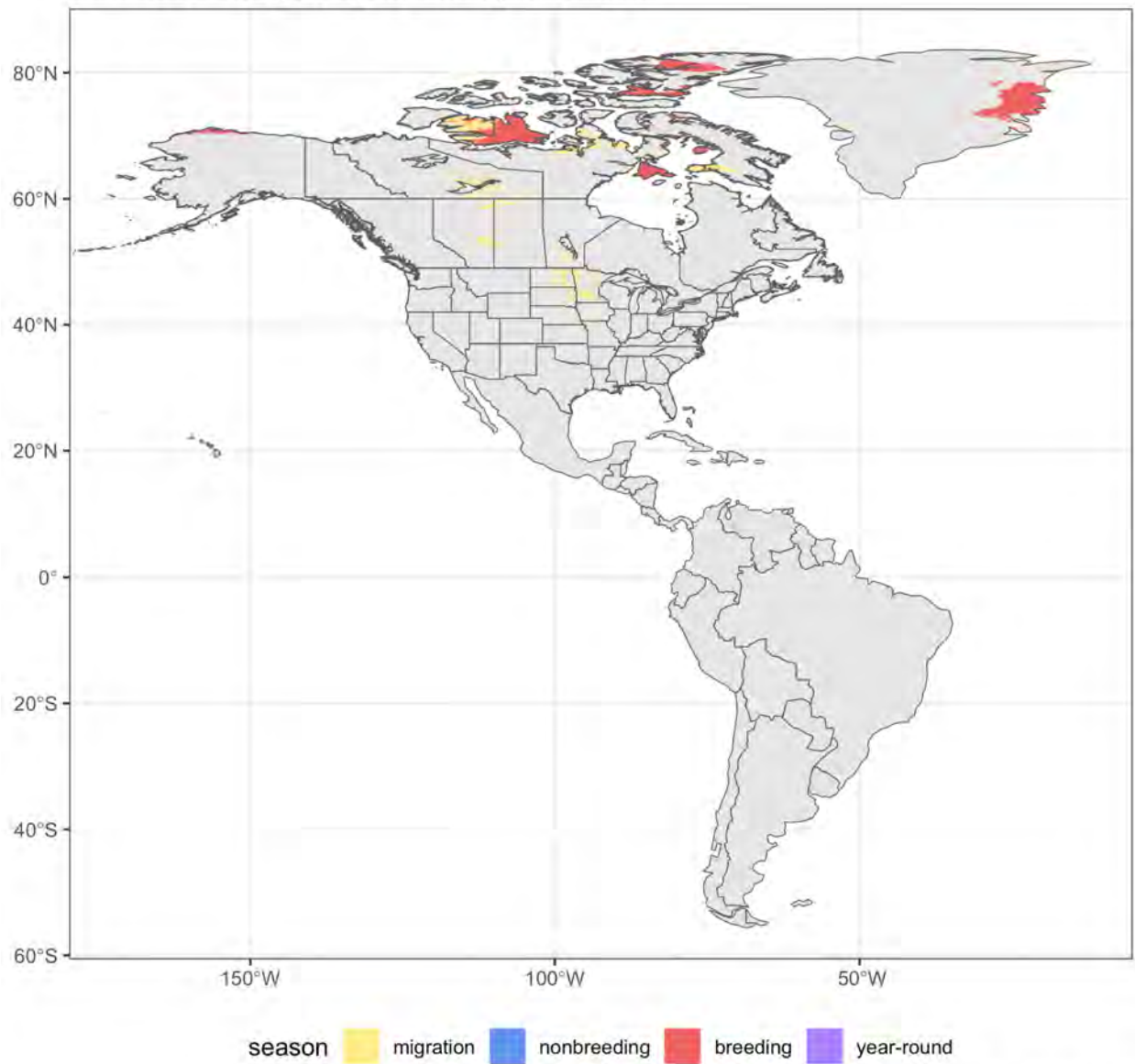


Figure 2. Breeding range for ruddy turnstone (eBird).

Year-round range map for Ruddy Turnstone



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

Figure 3. Year-round range of ruddy turnstone (eBird).

III. New York Rarity

(provide map, numbers, and percent of state occupied)

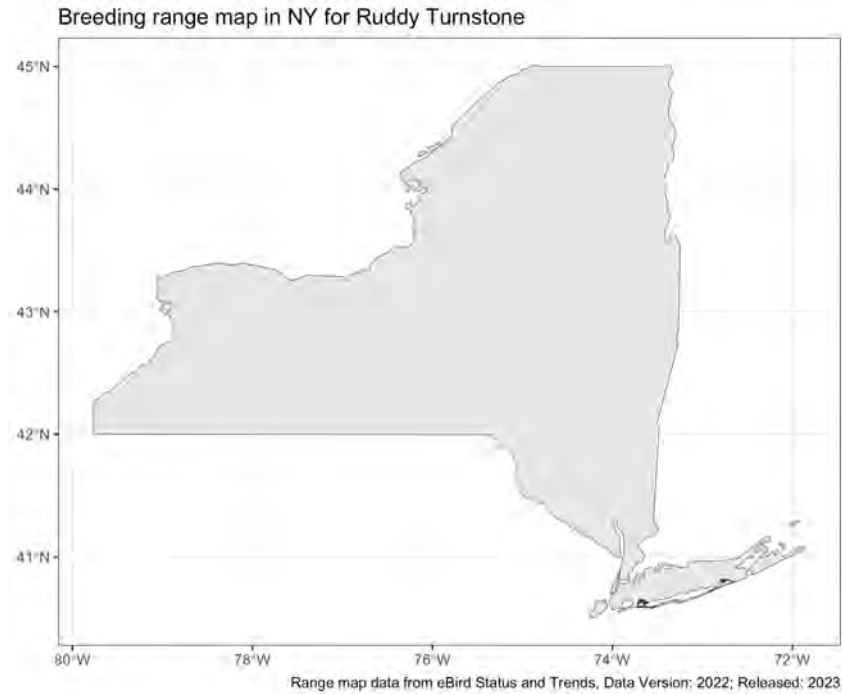


Figure 4: NYS breeding range of ruddy turnstone (eBird).

Details of historic and current occurrence:

The first Breeding Bird Atlas (BBA) (1980-85) documented occupancy in 0 blocks, 0% of the survey blocks statewide (Andrle and Carroll 1988). The second BBA (2000-05) documented occupancy in 0 blocks, 0% 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, ruddy turnstone has been documented in 4 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:

Based on eBird data, 0.1 percent of the population breeds in New York, while 0.06 percent of the non-breeding population occurs in New York. Among all states with breeding populations, New York ranks 11 of 19.

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):

NatureServe broad habitat types: Sand/dune, Bare rock/talus/scree, Tundra, Riparian, Tidal flat/shore

Habitat or Community Type Trend in New York

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

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:

Ruddy turnstones occur on beaches of sand or pebbles, rocky islands, jetties, mud flats, salt meadows (Bull 1974).

Nonbreeding habitat includes rocky, barren pebbly coasts, sandy beaches, mud flats, river mouths, tidal creeks, and shores of lakes (AOU 1983); fields (Shallenberger 1984). The nest in dry, dwarf-shrub tundra, usually near water (AOU 1983); various habitats ranging from wet mud or barren peat to dense vegetation, though appears to favor barren habitats (see Johnson and Herter 1989). Usually, they breed along the coast. Nests are on the ground, and they may nest near other ruddy turnstones.

IUCN habitat description: This species is fully migratory (del Hoyo et al. 1996). It breeds from May to early-August in solitary pairs, although several pairs may nest close together in optimal habitats along coasts or on islands (Johnsgard 1981, Hayman et al. 1986, del Hoyo et al. 1996, Snow and Perrins 1998). The species migrates in large flocks and is gregarious and sociable when feeding or roosting in winter, often foraging in close flocks of 10-100 or more individuals, especially in tidal areas (del Hoyo et al. 1996, Snow and Perrins 1998). The species breeds near the coast or up to several kilometres inland in the high Arctic, nesting on coastal plains, marshes and tundra and showing a preference for mosaics of bare rock, clay or shingle and vegetation near water or in areas that remain damp until late summer (Johnsgard 1981, Hayman et al. 1986, del Hoyo et al. 1996, Snow and Perrins 1998). Outside of the breeding season the species is mainly coastal, although on migration it may occur inland along dykes or on lake shores (del Hoyo et al. 1996). During the winter it frequents productive rocky and shingle shores, breakwaters, sandy beaches with storm-wracked seaweed, short-grass saltmarshes, sheltered inlets, estuaries, mangroves swamps, exposed reefs and mudflats with beds of molluscs (Hayman et al. 1986, del Hoyo et al. 1996). Diet Breeding On its Arctic

breeding grounds the species takes Diptera (especially adult and larval midges) as well as larval Lepidoptera, Hymenoptera, Coleoptera and spiders, occasionally also taking vegetable matter early in the season (del Hoyo et al. 1996). Non-breeding Outside of the breeding season its diet consists of insects, crustaceans, molluscs (especially mussels or cockles), annelids, echinoderms, small fish, carrion and birds eggs (Johnsgard 1981, del Hoyo et al. 1996). Breeding site The nest is a shallow depression in mud, peat or on dry ground with dense vegetation, often positioned on a slight ridge, hummock or tussock, or in cleft or shallow fissure (Johnsgard 1981, del Hoyo et al. 1996, Snow and Perrins 1998). The species usually nests solitarily, although neighbouring pairs may nest as little as 15 m apart along coasts or on islands (where abundant feeding habitats are available) (Snow and Perrins 1998). Management information Removing feral American mink *Neovison vison* from a large archipelago with many small islands in the Baltic Sea had the result of increasing the breeding density of this species in the area (Nordstrom et al. 2003).

V. Species Demographics and Life History

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

Usually feeds singly or in small numbers (may defend individual feeding territory); may feed with other shorebirds along sandy or rocky beaches. May form large flocks (500 or more) during migration. Sleeps or rests in flocks.

From Nettleship (2000): The age at first breeding is normally 2 years (Bergman 1946, Thompson 1973, Johnson 1979); breeds each year after sexual maturity, producing one brood per season. Information on annual productivity and breeding success very limited. No data on lifetime reproductive success. Breeding success in North America is estimated at 30% (Nettleship 1967, 1973). There are few serious predators on breeding grounds. Return rate to natal area appears low for both sexes. Birds likely return to general region of birth, dispersing widely.

VI. Threats

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.
1. Residential and Commercial	1.3 Tourism & Recreation Areas	-	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	8.2 Problematic Native Plants & Animals	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
9. Pollution	9.1 Domestic & Urban Wastewater	9.1.2 Runoff	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
9. Pollution	9.2 Industrial & Military Effluents	9.2.1 Oil spills	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	-	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Table 1. Threats to ruddy turnstone.

From Nettleship (2000): Ruddy turnstone are threatened by human disturbances in many regions throughout the range, including coastal development that alters and destroys critical feeding and roosting habitats, oil and toxic-chemical pollution, and direct interference from human recreational practices. Considerable developmental pressures have occurred along traditional coastal migration routes in North America, including critical staging areas with subsequent environmental changes and habitat loss (Senner and Howe 1984, Bildstein et al. 1991, Morrison et al. 1994a, 1994b). Of particular concern are those coastal staging sites essential to pre- and post- breeding long-distance migratory movements of 10,000s–100,000s (sometimes >1 million) of shorebirds due to enormous and predictable seasonal abundance of preferred foods. Examples of major sites currently threatened by human activity include the Delaware Bay estuary, New Jersey, and Delaware where horseshoe crab eggs are an essential food item.

Ruddy turnstone is susceptible to avian influenza so may be threatened by future outbreaks of the virus (Melville and Shortridge 2006). Other threats affecting shoreline birds include beach nourishment, sand mining, and shoreline armoring/use of bulkheads. Sea level rise and increased frequency and severity of storms and flooding will likely affect coastal habitat and available resources for the ruddy turnstone.

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:

This species is included in the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712) and is protected as a native species under the NYS Environmental Conservation Law.

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

Action Category	Action	Description
A.1 Direct Habitat Management	A.1.0.0.0 Direct habitat management	Site/Area management (posting/fencing)
B.3 Outreach	B.3.1.4.0 Public outreach and information	Awareness & Communications

Action Category	Action	Description
C.6 Design and Plan Conservation	C.6.5.0.0 Conservation planning	-Site/Area protection -Resource/Habitat Protection
C.7 Legislative and Regulatory Framework or Tools	C.7.1.0.0 Create, amend, or influence legislation, regulation, or codes	Policy/Regulations (establish seasonal use restrictions, adjust state land unit mgmt. plans)
C.10 Institutional Development	C.10.2.0.0 External support and organizational development	Alliance and Partnership Development

Table 2. Recommended conservation actions for ruddy turnstone.

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for transient shorebirds, which includes ruddy turnstone.

Fact Sheet:

- _____ Develop educational materials about conservation needs of shorebirds in New York, and promote habitat protection measures.

Habitat Management:

- _____ As important foraging areas become known, identify potential threats and protect those habitats (ex- beaches, tidal flats, shoals, etc.) from permanent alteration, degradation, or adverse human disturbances. Management may include acquisition, easements, establishing seasonal use restrictions, and posting or fencing, etc. as is currently done for beach-nesting birds.

Habitat Research:

- _____ Conduct field studies to document ecology of transient shorebirds on Long Island, including important food items, habitat use (ex- importance of tidal flats) and time/activity budgets.
- _____ Compile data and input from birders to derive a map showing important shorebird foraging and resting areas in New York.

Other Action:

- _____ Provide technical support, funding, or political support as needed, to further international shorebird conservation efforts.

Population monitoring:

- _____ Identify specific locations, procedures, and observers (volunteer or other) for conducting annual shorebird surveys at 5-10 locations in New York, and initiate surveys as soon as possible.

State Land Unit Management Plan:

- _____ On state-owned or other public lands, ensure that management plans consider shorebird needs and appropriately restrict site development and seasonal uses that may adversely affect critical shorebird foraging areas.

Statewide Management Plan:

- _____ Develop a conservation plan for transient (non-breeding) shorebirds that regularly occur in New York, to include objectives and actions that we can assist with both inside and out of New York State.

VII. References

This SSA drew heavily from these resources:

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