

Species Status Assessment

Class: Birds
Family: Rallidae
Scientific Name: *Laterallus jamaicensis*
Common Name: Black Rail

Species synopsis:

Two of five black rail subspecies breed in North America; the eastern black rail (*L. j. jamaicensis*) breeds in the eastern United States and southward into Central America. The northern edge of the distribution is in Long Island, NY and along the Connecticut shore. Black rails inhabit tidal marshes and freshwater wetlands. The breeding range of eastern black rail has contracted since the early 1930s and its population has declined by as much as 75% over the past 10 to 20 years. It is not abundant anywhere but occurs in higher densities south of New Jersey.

One of New York's rarest birds and the smallest of the rail family, this state-endangered species was documented in only one Atlas block in both survey periods—the location in that survey block was Oak Beach, Suffolk County—and was not confirmed breeding during either Atlas survey. Medler (2008) summarized the history of the species in New York: confirmed breeding has not been documented since 1940, though breeding was suspected in 1969 (Post and Enders 1969).

I. Status

a. Current Legal Protected Status

- i. **Federal** Not Listed **Candidate:** Yes
- ii. **New York** Endangered; SGCN

b. Natural Heritage Program Rank

- i. **Global** G4
- ii. **New York** S1B **Tracked by NYNHP?** Yes

Other Rank:

IUCN Red List Category: NT - Near threatened
Audubon Watch List – Red

Status Discussion:

The continental population of black rail is estimated to be 110,000 individuals. It is not abundant anywhere but occurs in higher densities south of New Jersey.

New York represents the northern limit of the eastern population. Black rail is a rare and local breeder in New York, with records limited to the south shore of Long Island. Breeding has not been confirmed in the state since 1937, more than 70 years ago (see Medler 2008). Only one breeding season location was documented during each Breeding Bird Atlas—both were at Oak Beach, Suffolk County. Single records in coastal Westchester County (June 1986) and in Jefferson County (June 1996) were accepted by the New York State Avian Records Committee (NYSARC 1987, 1999).

II. Abundance and Distribution Trends

a. North America

i. Abundance

 X declining ___increasing ___stable ___unknown

ii. Distribution:

 X declining ___increasing ___stable ___unknown

Time frame considered: Since 1930s

b. Regional

i. Abundance

 X declining increasing stable unknown

ii. Distribution:

 X declining increasing stable unknown

Regional Unit Considered: Atlantic Coast

Time frame considered: Since 1930s

c. Adjacent States and Provinces

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

i. Abundance

 declining increasing stable X unknown

ii. Distribution:

 declining increasing stable X unknown

Time frame considered: Not specified

Listing Status: Endangered SGCN? Yes

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

i. Abundance

 X declining increasing stable unknown

ii. Distribution:

 X declining increasing stable unknown

Time frame considered: 1930s to present

Listing Status: Endangered SGCN? Yes

QUEBEC **Not Present** X **No data**

VERMONT **Not Present** X **No data**

ONTARIO **Not Present** X **No data**

MASSACHUSETTS **Not Present** X **No data**

PENNSYLVANIA

Not Present X No data _____

d. NEW YORK

i. Abundance

___ declining ___ increasing ___ stable X unknown

ii. Distribution:

___ declining ___ increasing ___ stable X unknown

Time frame considered: Always known to be rare in NY

Monitoring in New York.

A three-year pilot study of the National Marshbird Monitoring Program was conducted from 2009-2011 at selected wetlands across the state. Surveys continued in 2012. In addition, the Marsh Monitoring Program through Bird Studies Canada has long term marsh bird monitoring routes in the Great Lakes Basin part of New York. The black rail is a target species in both of these survey protocols.

Trends Discussion:

Little baseline information is available to estimate population trends of black rail. Although population trends are difficult to assess accurately in this reclusive species, nearly all U.S. populations appear to have declined drastically in this century, and have only recently stabilized with the enactment of laws protecting wetlands in the last 25 years.



Figure 1. Range of black rail (NYSDEC).

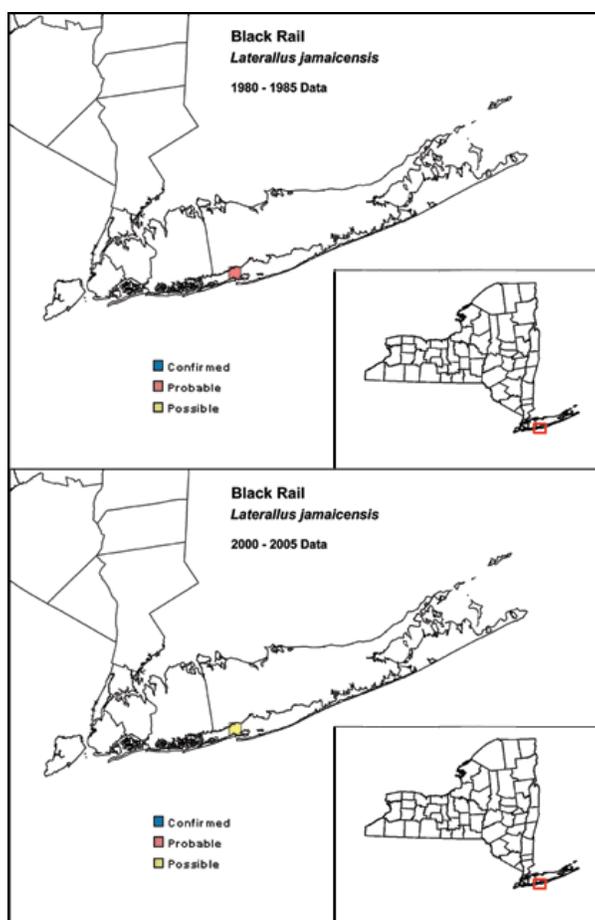


Figure 2. Distribution of black rail in New York from the NYS Breeding Bird Atlas (NYSDEC).

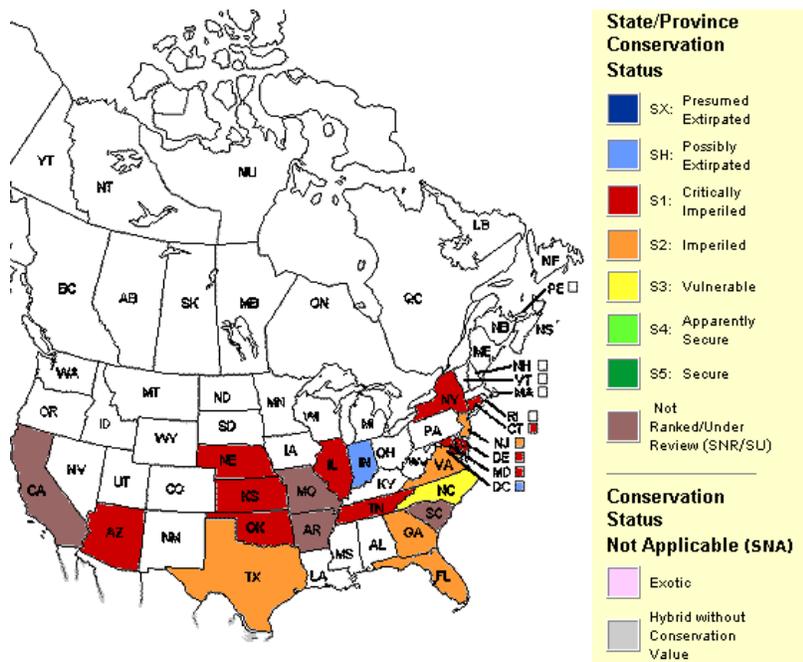


Figure 3. Conservation status of black rail in the United States (NatureServe 2012).

III. New York Rarity, if known:

Historic	<u># of Animals</u>	<u># of Locations</u>	<u>% of State</u>
prior to 1970	5	_____	_____
prior to 1980	_____	_____	_____
prior to 1990	_____	_____	_____

Details of historic occurrence:

Eaton (1910) was aware of only five specimens from New York. The first breeding bird atlas (1980-85) documented only one record: Oak Beach, Suffolk County. Two other records are known away from Long Island between atlas surveys: Westchester Co. in June 1986, and Jefferson Co. in June 1996 (see Medler 2008).

Current	<u># of Animals</u>	<u># of Locations</u>	<u>% of State</u>
	_____	1	_____

Details of current occurrence:

The second breeding bird atlas (2000-05) documented only one record—Oak Beach, Suffolk County—the same location of the single record during NY’s first atlas. A territorial black rail was documented on three dates in June and July 2009 at Napeague, Suffolk County (Lindsay and Mitra 2009).

New York’s Contribution to Species North American Range:

Distribution (percent of NY where species occurs)

- 0-5%
- 6-10%
- 11-25%
- 26-50%
- >50%

Abundance (within NY distribution)

- abundant
- common
- fairly common
- uncommon
- rare

NY’s Contribution to North American range

- 0-5%
- 6-10%
- 11-25%
- 26-50%
- >50%

Classification of New York Range

Core

Peripheral

Disjunct

Distance to core population:

IV. Primary Habitat or Community Type:

1. Freshwater Marsh
2. Great Lakes Freshwater Estuary Marsh
3. Estuarine, Brackish Intertidal, Tidal Wetland, High Marsh
4. Coastal Plain Pond
5. Wet Meadow/Shrub Swamp

Habitat or Community Type Trend in New York:

Declining Stable Increasing Unknown

Time frame of decline/increase: Since 1950s

Habitat Specialist? Yes No

Indicator Species? Yes No

Habitat Discussion:

Black rail occur in salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy areas. Confirmed breeding occurred in saltmeadow cordgrass in New York and breeding was suspected in saltwater cordgrass (see Medler 2008).

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 age at first breeding is unknown, but presumed to be one year. Little is known of their life span and survival; one male in Arizona was at least 2.5 yr old. Adult survival appears to be high in stable habitats, despite predation by herons and other avian predators during extreme high tides—a primary source of mortality for populations in tidal marshes. Juveniles disperse widely from breeding areas and may appear in atypical habitat. Black rails are probably capable of quickly colonizing new habitats.

VI. Threats:

Loss and degradation of suitable wetland habitat pose greatest threats to black rails (McMullen 1944, Todd 1977, Kerlinger and Sutton 1989, Evens et al. 1991). Because it prefers shallow-water environments, the black rail faces numerous threats to its habitat. About half of coastal wetlands in many eastern states have been lost to dredging and filling (Tiner 1984). Ditching of salt marshes to eliminate habitat for breeding mosquitos may cause declines in prey populations and therefore loss of habitat (Post and Enders 1969, Kerlinger and Sutton 1989). Alteration of water regimes on the East Coast can allow common reed (*Phragmites australis*) to invade higher sections of salt marshes and degrade habitat.

As a coastal breeding species, black rail is threatened by future sea level rise caused by climate change. Because their salt marsh habitat is subject to inundation by sea level rise, black rails may not have habitat to disperse to. This species was classified as “moderately vulnerable” to predicted climate change in an assessment of vulnerability conducted by the New York Natural Heritage Program (Schlesinger et al. 2011).

Collisions with human-made structures, such as lighthouses, towers, buildings, and wires, are a well-documented mortality source. Humans have also directly increased mortality levels through various other means, including hunting, automobile strikes, trampling by birdwatchers, decapitation by mowers, and possibly trapping.

Chemical contamination is another potential limiting factor. Ingestion of lead shot by soras (*Porzana carolina*), a close relative of the black rail, has been documented in Maryland, and lead residues at levels lethal to waterfowl were discovered in the tissues of some of these birds (Stendell et al. 1980). Although undetermined, black rails may also be contaminated by pesticides which are applied to saltmarshes or leached into wetlands from nearby agricultural fields.

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

No Unknown

Yes

The black rail is listed as an endangered species in New York and is protected by Environmental Conservation Law (ECL) section 11-0535 and the New York Code of Rules and Regulations (6 NYCRR Part 182). A permit is required for any proposed project that may result in a take of a species listed as Threatened or Endangered, including, but not limited to, actions that may kill or harm individual animals or result in the adverse modification, degradation or destruction of habitat occupied by the listed species.

Black rail is protected under the Migratory Bird Treaty Act of 1918. The Freshwater Wetlands Act provides protection for wetlands greater than 12.4 acres in size under Article 24 of the NYS Conservation Law. 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 federal ban on the use of lead shot by waterfowl hunters in 1991 likely benefitted black rails (Tranel and Kimmel 2009). 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	Invasive/Problematic Species Control
Land/Water Management	Habitat/Natural Process Restoration
Law/Policy Actions	Legislation Change/Implementation- formal government sector legislation or policies at all levels
Law/Policy Actions	Legislation Change/Implementation- affecting implementation of laws at all levels
Livelihood/Economic/Other Incentives	Promote Alternative Products/Services
Livelihood/Economic/Other Incentives	Market Forces to Change Behaviors
Livelihood/Economic/Other Incentives	Conservation Payments to Change Behaviors
External Capacity Building	Institutional & Civil Society Development
External Capacity Building	Conservation Finance Raising/Providing Funds

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for salt marsh breeding birds, which includes black rail.

Habitat Management:

- ___ Develop coordinated and specific habitat management and restoration projects for identified focus areas.
- ___ Integrate bird conservation interests in agency planning, management, research, restoration, and permitting actions, within the context of agency missions.
- ___ Protect extant salt marsh habitat through:
 - Developing and implementing a salt marsh management and restoration plan.
 - Mapping extant salt marshes in the Lower Hudson/Long Island Bays Watershed.

- Implementing a “no net increase” in shoreline armoring for all estuaries, bays, and harbors in the watershed.
- Protecting land and requiring upland buffers associated with salt marsh habitat.
- Establishing vegetated buffers landward of salt marshes.
- Protecting salt marsh platforms of shoals and flats created by temporary barrier island beaches and overwash fans.
- Modifying tidal wetland laws, regulations, and policies to address sea level rise.

Habitat Monitoring:

___ Regularly monitoring status and trends of salt marsh habitat through aerial surveys and site-based monitoring.

Habitat Research:

___ Identify strategies and develop a plan for slowing the loss of emergent tidal salt marsh to erosion, fragmentation, and invasive species.

Habitat Restoration:

___ Alternative methods of mosquito control should be investigated to allow the modification of mosquito ditching to restore native ecological habitats, by allowing vegetated tidal wetlands to take precedence over mosquito control efforts in some areas. Mosquito ditching should be removed/closed when possible.

___ Financial incentives for landowners to remove bulkheads and plant native vegetation in upland buffer area to protect salt marshes.

___ Work with State, Federal, Local, and NGOs to identify tidal wetlands and fund their restoration to intact emergent salt marsh. Develop coordinated and specific habitat restoration projects for identified focus areas.

___ Develop NYS guidelines for salt marsh restoration. The guidelines should include information on the following:

- Phragmites control
- Reconnecting disjunct or fragmented salt marshes
- Reducing nutrient loading into salt marshes from road run-off septic systems, fertilizers, etc.
- Naturalizing and softening the shoreline
- Natural and “soft” alternatives to bulkheads

Invasive Species Control:

___ Develop plan for addressing habitat loss to invasive Phragmites reed.

Life History Research:

___ Identify critical habitat components for supporting each species.

Population Monitoring:

___ Initiate statewide, comprehensive salt marsh-breeding bird survey for Seaside Sparrow, Salt Marsh Sharp-tailed Sparrow, Black Rail, and Clapper Rail. Resurvey active sites annually, and all habitat sites every 5 years. Continue annual tern surveys and gull surveys every three years as part of Long Island Colonial Waterbird Survey.

Statewide Baseline Survey:

___ Initiate statewide, comprehensive salt marsh-breeding bird survey for Seaside Sparrow, Salt marsh Sharp-tailed Sparrow, Black Rail, and Clapper Rail.

Statewide Management Plan:

___ Develop coordinated, statewide management plan that takes into consideration differences in habitat needs, species distribution, life histories, and human impacts.

VII. References

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