

Species Status Assessment

Class: Birds
Family: Ardeidae
Scientific Name: *Bubulcus ibis*
Common Name: Cattle egret

Species synopsis:

This species began a remarkable worldwide range expansion from eastern Africa in the late 1800s, and on the North America continent in the early 1950s. The U.S. population increased greatly from the 1950s to the 1970s, and by the 1990s, cattle egret was common in many regions. Populations are still colonizing new areas, but Atlantic Coast populations have been declining since the 1970s to 1990s (Telfair 2006, Sauer et al. 2012). Regarding their presence in New York, McCrimmon (1978) noted that the cattle egret has demonstrated the “complex and variable dynamics of a species at the northern limit of its range.”

Cattle egret first appeared in New York in 1970 when nesting was documented at Gardiners Island, Suffolk County (Puleston 1970). During the 1980s, two colonies were active upstate: Little Galloo Island and Four Brothers Island. Only Four Brothers Island currently has breeding activity. Although no birds were observed nesting during the 2013 survey in New York Harbor, there were two adult birds in breeding plumage sighted on Elders Marsh, Jamaica Bay during June of that year (S. Elbin, pers. comm.).

I. Status

Current Legal Protected Status

Federal Not Listed Candidate: No

New York SGCN

Natural Heritage Program Rank

i. **Global** G5

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

Other Rank:

IUCN Red List: Least Concern

Status Discussion:

In New York, cattle egret currently breeds at one upstate location, and the statewide population trend is downward. In the NYC Harbor, the population declined from a high of 266 nests on two islands in 1985 to zero (Craig 2012). There is concern in most other northeastern states; cattle egret is ranked as Critically Imperiled in Maine, Vermont, Massachusetts, Connecticut, and Rhode Island. Populations are Apparently Secure or Secure in the southeastern United States. Five southern states, including Virginia and West Virginia, rank the species as exotic.

II. Abundance and Distribution Trends

a. North America

i. Abundance

declining increasing stable unknown

ii. Distribution:

declining increasing stable unknown

Time frame considered: 1999-2009

b. Regional

i. Abundance

declining increasing stable unknown

ii. Distribution:

declining increasing stable unknown

Regional Unit Considered: Eastern BBS

Time frame considered: 2001-2011

c. Adjacent States and Provinces

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

i. Abundance

declining **increasing** **stable** **unknown**

ii. Distribution:

declining **increasing** **stable** **unknown**

Time frame considered: Not Specified

Listing Status: _____ Not Listed (S1) _____ SGCN? No

MASSACHUSETTS **Not Present** _____ **No data** _____

i. Abundance

declining **increasing** **stable** **unknown**

ii. Distribution:

declining **increasing** **stable** **unknown**

Time frame considered: _____

Listing Status: _____ Not Listed (S1) _____ SGCN? No

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

i. Abundance

declining **increasing** **stable** **unknown**

ii. Distribution:

declining **increasing** **stable** **unknown**

Time frame considered: 1999-2009

Listing Status: _____ Threatened (breeding) _____ SGCN? Yes

Monitoring in New York.

Long Island Colonial Waterbird Surveys are conducted every three years for cattle egret. Surveys will next be conducted in 2013. NYC Audubon conducts annual surveys. A coordinated regional survey (Maine to Virginia) was conducted in 2013.

Trends Discussion:

Although populations are continuing to increase in some areas of the United States, populations along the Atlantic Coast have been declining since the 1970s in some places, and since the 1990s in others (Telfair 2006, Sauer et al. 2012).

Cattle egret currently breeds in the NYC area and at one upstate location, Four Brothers Island (Lake Champlain, Essex County). It was first reported in NY in 1970 at Gardiners Island, Suffolk County. The first upstate breeding record was of several pairs and one active nest at Four Brothers Island in 1973. In the early 1980s, the two upstate colonies showed a downward trend and the coastal colonies continued to increase to about 351 pairs in 1985. Since that time those colonies have also decreased (Chamberlaine in Levine 1989).

The second Breeding Bird Atlas documented a 38% reduction the number of blocks where cattle egret was confirmed breeding: 8 blocks in 1980-85 and 5 blocks in 2000-05 (McGowan and Corwin 2008). The Long Island Colonial Waterbird Survey shows low numbers in 2001 (3 pairs) and reports only one pair in 2010, at Canarsie Pol (Brooklyn County); no active nesting was documented in 2013 (F. Hamilton, pers. comm.). Confirmed breeding continued at Four Brothers Island as reported by the Atlas, but by 2007 there were no breeding pairs (High Peaks Audubon Society unpublished data).

Though not a preferred method for monitoring waterbird colonies, the BBS shows a significant declining trend of 3.7% annually for the Eastern BBS region for the period 1999-2009. The trend for North America for this period is a non-significant 0.3% increase.

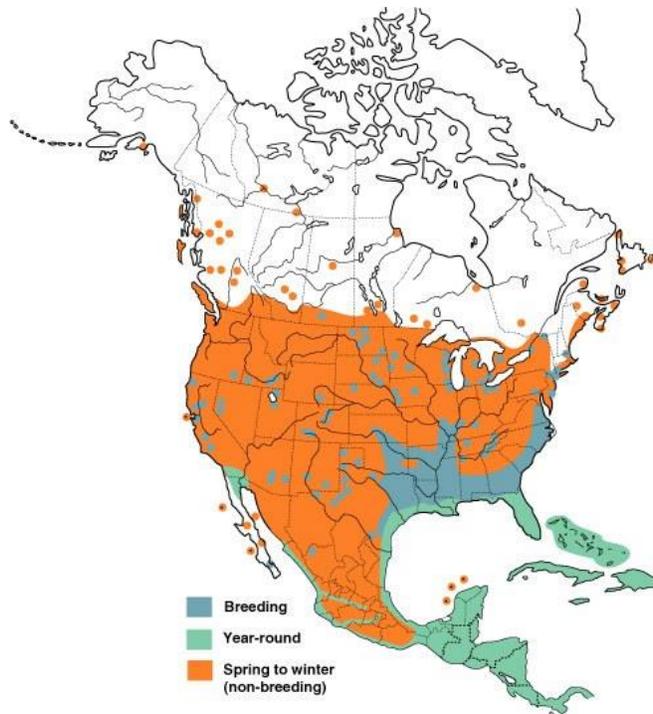


Figure 1: Range of cattle egret in North America (Birds of North America Online).

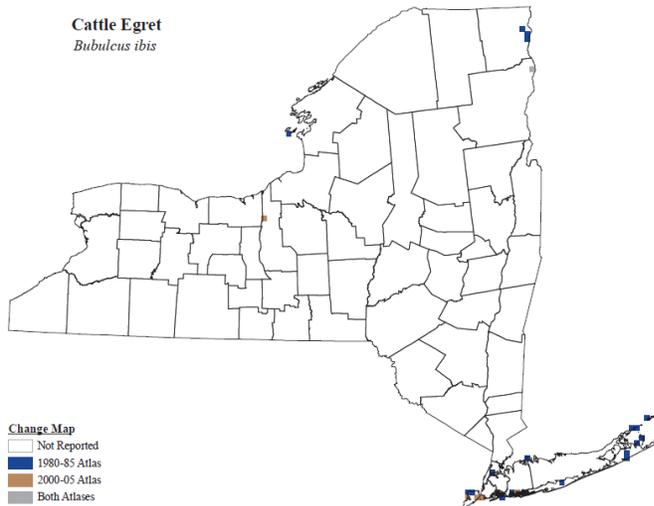


Figure 2: Occurrence of cattle egret in New York during the Breeding Bird Atlas (McGowan and Corwin 2008).

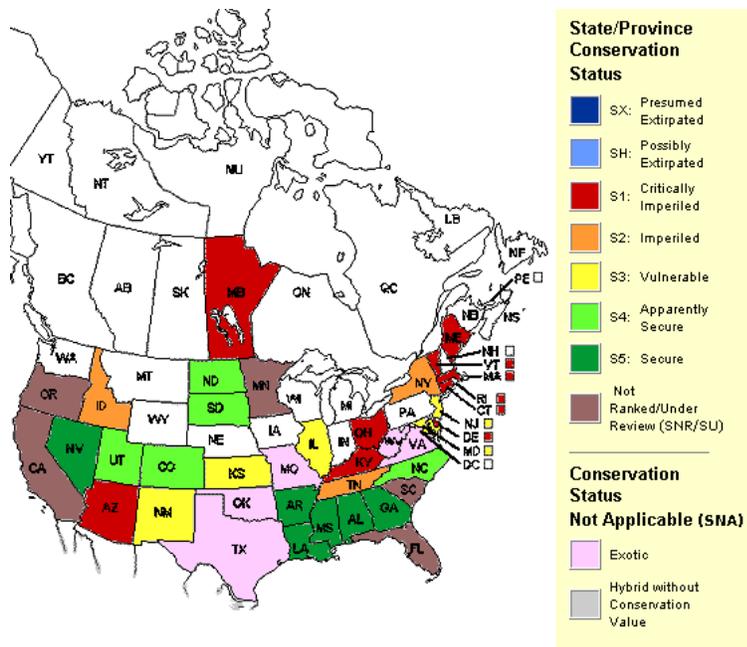


Figure 3: Conservation status of cattle egret in North America (NatureServe 2013).

III. New York Rarity, if known:

Historic	<u># of Animals</u>	<u># of Locations</u>	<u>% of State</u>
prior to 1970	_____	_____	_____
prior to 1980	_____	_____	_____
prior to 1990	_____	<u>6 colonies</u>	_____

Details of historic occurrence:

During first Breeding Bird Atlas (1980-85), there were two upstate colonies: (1) Four Brothers Island in Lake Champlain with 8 active nests in 1980, (2) Little Galloo Island in Lake Ontario with 6 nests in 1982 (maximum count during 1908-85). Downstate, four colonies in southwestern Long Island and Staten Island were reported as “growing” with 351 pairs in 1985 (Andrle and Carroll 1988).

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

Details of current occurrence:

During the second Breeding Bird Atlas (2000-05), nesting was documented upstate only at Four Brothers Islands. Downstate, 2004 surveys at the New York Harbor area showed breeding only at South Brother Island (Bronx County) and Hoffman Island (Suffolk County), and in 2005 only at South Brother Island (McGowan and Corwin 2008). The Long Island Colonial Waterbird Survey in 2010 documented breeding at one colony, Canarsie Pol, with one active breeding pair. No active nesting was documented during 2013 surveys (F. Hamilton, pers. comm.). Although no birds were observed nesting during the 2013 survey in NY Harbor, there were two adult birds in breeding plumage on Elders Island in Jamaica Bay in June (S. Elbin, pers. comm.).

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. Pasture/Hay
2. Urban and Recreational Grasses
3. Freshwater Marsh
4. Estuarine, Brackish Intertidal, Tidal Wetland, Low Marsh
5. Marine Intertidal Gravel/Sand Beach

Habitat or Community Type Trend in New York:

Declining Stable Increasing Unknown

Time frame of decline/increase: Since 1970s (coastal wetlands)

Habitat Specialist? Yes No

Indicator Species? Yes No

Habitat Discussion:

Cattle egret are distinct from other herons in their association with cattle. They are found in wet pastureland and marshes, fresh water and brackish situations, dry fields, and agricultural areas (especially irrigated ones), as well as at garbage dumps. Breeding colonies are often situated near human habitation (Telfair et al. 2000b). On Long Island, cattle egret occur on non-barrier salt marsh islands (NY Natural Heritage 2009).

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:

Although many ardeids show non-directional juvenile wandering after the breeding season, this behavior is especially well-developed in the cattle egret. Individuals first breed at two years of age. There is normally one brood per season. Hatching success varies considerably, ranging from 14.3% in Alabama (Dusi and Dusi 1970) to 97.0% in New Jersey (Burger 1978). There is no data on lifetime reproduction.

VI. Threats:

Cattle egret are threatened by loss and degradation of foraging and breeding habitat. Threats include flooding, development, predation by gulls, fox, and raccoon, and disturbance of nesting areas by human activity including boating, fishing, and deposition of dredge spoil (NY Natural Heritage Program 2009). The small, local populations in which cattle egret exist in New York are inherently unstable.

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

- No
- Unknown

X Yes

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

Conservation actions following IUCN taxonomy are categorized in the table.

Conservation Actions	
Action Category	Action
Land/Water Protection	Site/Area Protection
Land/Water Protection	Resource/Habitat Protection
Land/Water Management	Site/Area Management
External Capacity Building	Alliance & Partnership Development

The Comprehensive Wildlife Conservation Strategy (NYSDEC 2005) includes recommendations for the following actions for colonial nesting herons.

Habitat management:

- ___ Integrate bird conservation interests in agency planning, management, and research projects, within the context of agency missions. Watersheds 1, 5 and 10 have the highest priority with Watershed 10 the highest of those.
- ___ Develop coordinated and specific management and habitat restoration projects for identified focus areas that can then be submitted as grant proposals. Watersheds 1, 5 and 10 have the highest priority with Watershed 10 the highest of those.

Habitat research:

- ___ Identify habitat research projects for heron and egret species that can then be submitted as grant proposals.

Habitat restoration:

- ___ Work with State, Federal and NGOs to identify wetlands and fund their restoration. Develop coordinated and specific habitat restoration projects for identified focus areas that can then be submitted as grant proposals.

Life history research:

- ___ Identify research needs for New York populations dealing with habitat, food habits, behavior, breeding, and reproductive success for heron and egret species that can then be submitted as grant proposals.

Population monitoring:

- ___ Initiate statewide, comprehensive colonially nesting heron survey. Resurvey every five years after initial survey. Watersheds 1, 5 and 10 have the highest priority with Watershed 10 the highest of those.

Statewide management plan:

— Develop coordinated, statewide management plan that takes into consideration differences in colony sizes, species distribution, habitat characteristics and human populations for upstate and downstate regions, particularly Long Island. Watersheds 1, 5 and 10 have the highest priority with Watershed 10 the highest of those.

VII. References

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