

Species Status Assessment

Class: Birds
Family: Scolopacidae
Scientific Name: *Calidris pusilla*
Common Name: Semipalmated sandpiper

Species synopsis:

This sandpiper is a long-distance migrant, breeding in the arctic and wintering along the northern coast of South America. Referred to as an abundant shorebird across its range, the semipalmated sandpiper has experienced dramatic declines in numbers since the 1980s at breeding grounds, at significant staging areas, and on wintering grounds. In one wintering area in Suriname, numbers of semipalmated sandpiper have dropped from 2 million in the 1980s to 400,000 during 2009 and 2010 surveys (NJ Audubon). Jehl (2007) described the breeding population in Churchill, Manitoba as having “disappeared,” with the last documented nesting of this species occurring there in 2001.

The Delaware Bay is a traditional migration stopover for birds breeding in the eastern arctic and migrating along the Atlantic Flyway. Thousands of birds congregate there annually to feed on calorie-rich horseshoe crab eggs. Aerial spring surveys at Delaware Bay show declines in semipalmated sandpiper from 285,802 in 1986 to 51,320 in 2002 (USFWS 2003). In New York, this sandpiper is an abundant migrant on Long Island beaches and along large inland shorelines.

I. Status

a. Current and Legal Protected Status

i. **Federal** Not Listed **Candidate?** No
ii. **New York** SGCN

b. Natural Heritage Program Rank

i. **Global** G5
ii. **New York** SNRN **Tracked by NYNHP?** No

Other Rank:

U.S. Shorebird Conservation Plan – Species of Moderate Concern; Population trend – “Highly Imperiled”
IUCN – Near Threatened (2012)

COSEWIC – Candidate for listing

Status Discussion:

The semipalmated sandpiper is a very abundant migrant on coastal areas of New York. It is a regular summering nonbreeder in small numbers annually. Inland, it is common in the spring and very common in the fall.

II. Abundance and Distribution Trends

a. North America

i. Abundance

declining increasing stable unknown

ii. Distribution:

declining increasing stable unknown

Time frame considered: 1980s to 2008

b. Regional

i. Abundance

declining increasing stable unknown

ii. Distribution:

declining increasing stable unknown

Regional Unit Considered: Northeast

Time Frame Considered: 1986 to 2008

Monitoring in New York.

None.

Trends Discussion:

The 1995 International Shorebird Survey classified semipalmated sandpiper as a species in significant decline. Brown (2004), Morrison et al. (2006), and Bart et al. (2007) have all reported semipalmated sandpiper to be a declining species. Surveys at the Bay of Fundy, Nova Scotia, where up to 75% of the population congregates during fall migration, show a long-term declining trend averaging 5% per year since 1986 (Clark et al. 2002).

Morrison et al. (1994) demonstrated significant declines in numbers of semipalmated sandpipers staging in Atlantic Canada 1974-1991 during fall migration – declines of approximately 10%/yr (Morrison et al. 1994) through to 1997 (Morrison and Hicklin 2001).

The number of birds wintering in Suriname declined from 2 million during the 1980s to 400,000 when surveys were next conducted in 2009 and 2010 (NJ Audubon).



Figure 1. Range of the semipalmated sandpiper in the Americas (Birds of North America Online).

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	_____	_____	_____

Details of historic occurrence:

A coastal maximum in May 1924: 25,000 birds between East Hampton and Mecox Bay, Suffolk County (Sherony 1998).

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

Details of current occurrence:

Morris (1990) reported on the fall 1989 season at Jamaica Bay Wildlife Refuge noting, “An excellent season was highlighted by a new maximum [for semipalmated sandpiper] of 2,457 on 28 July.” The number of juveniles (750) was also noted as unusually high. In May 2008 a high count of 400 individuals was reported at the Batavia Wastewater Treatment Plant in Genesee County (Morgante 2008).

New York’s Contribution to Species North American Range:

% of NA Range in New York	Classification of New York Range
<input checked="" type="checkbox"/> 0-5%	<input type="checkbox"/> Core
<input type="checkbox"/> 6-10%	<input type="checkbox"/> Peripheral
<input type="checkbox"/> 11-25%	<input checked="" type="checkbox"/> Disjunct
<input type="checkbox"/> 26-50%	Distance to core population:
<input type="checkbox"/> >50%	_____

IV. Primary Habitat or Community Type:

1. Estuarine, Brackish Intertidal, Benthic Geomorphology, Tidal Flat
2. Estuarine, Brackish Intertidal, Tidal Wetland

Habitat or Community Type Trend in New York:

Declining Stable Increasing Unknown

Time frame of decline/increase: _____

Habitat Specialist? Yes No

Indicator Species? Yes No

Habitat Discussion:

Semipalmated sandpipers migrating through New York use tidal estuaries and mudflats, frequently associating with other small shorebirds.

V. New York Species Demographics and Life History

Breeder in New York

Summer Resident

Winter Resident

Anadromous

Non-breeder in New York

Summer Resident (*occasional*)

Winter Resident

Catadromous

Migratory only

Unknown

Species Demographics and Life History Discussion:

Semipalmated sandpipers may breed as yearlings though most breed at age two and some at age three. Both males and females typically breed every year after first attempt. In Manitoba, mean number of young fledged per laying pair approximately 0.3 to 1.2 in different years. Mean number

of young fledged per successful pair (those hatching chicks) about 1.5 to 1.7. Never more than one brood per season.

A 13-year-old female was found at Jamaica Bay Wildlife Refuge in 1986 (Thaxton and Thaxton 1996), and a bird aged up to 17 years of age was reported at Nunavut (Jehl 2007).

VI. Threats:

Potential threats include direct loss, degradation and/or human disturbance of important foraging areas used during migration and wintering. Migrating shorebirds are also susceptible to the effects of environmental contaminants such as oil spills and pesticide use. As a shoreline species, semipalmated sandpiper might be negatively affected by increased storms and sea level rise from predicted effects of global climate change. Other threats affecting shorebirds include beach nourishment, sand mining, development of shoreline habitat, and shoreline armoring/use of bulkheads.

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

No Unknown

Yes

Semipalmated sandpipers are protected by the Migratory Bird Treaty Act but shoreline habitats in general are not protected.

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

Protection of shoreline habitat. Reduce disturbance from recreational beach activities. Conservation actions following IUCN taxonomy are categorized in the table below.

Conservation Actions	
Action Category	Action
Education & Awareness	Awareness & Communications (educational materials)
Land/Water Protection	Site/Area Protection (acquisition, easements)
Land/Water Protection	Resource/Habitat Protection
Land/Water Management	Site/Area Management (posting or fencing)
Law & Policy Actions	Policy/Regulations (establish seasonal use restrictions, adjust state land unit mgmt plans)
External Capacity Building	Alliance & Partnership Development (support and participate in international shorebird conservation efforts)

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

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

Bart, J., S. Brown, B. Harrington, and R.I.G. Morrison. 2007. Survey trends of North American shorebirds: population declines or shifting distributions? *J. Avian Biol.* 38: 73–82.

Brown, S. 2004. Priority Shorebirds. Manomet Center for Conservation Sciences, Manomet, MA, accessed at
[<http://www.fws.gov/shorebirdplan/downloads/ShorebirdPriorityPopulationsAug04.pdf>]

Clark, K.E., R.R. Porter, and J.D. Dowdell. 2002. The shorebird migration in Delaware Bay. *New Jersey Birds* 35(4):85-92.

Hicklin, P. and C. L. Gratto-Trevor. 2010. Semipalmated Sandpiper (*Calidris pusilla*), *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/006doi:10.2173/bna.6>

Jehl, J. R. 2007. Disappearance of breeding Semipalmated Sandpipers from Churchill, Manitoba: More than a local phenomenon. *Condor* 109(2):351-360.

Morgante, M. 2008. Region 1 – Niagara Frontier. *Kingbird* 58(3):243-51.

Morris, A. 1990. The 1989 fall shorebird season at Jamaica Bay Wildlife Refuge. *Kingbird* 40(3):132-48.

Morrison, R. I. G. and Peter Hicklin. 2001. Recent trends in shorebird populations in the Atlantic Provinces. *Bird Trends* 8:16-19.

Morrison, R. I. G., C. Downes, and B. Collins. 1994. Population trends of shorebirds on fall migration in Eastern Canada 1974-1991. *Wilson Bulletin* 106(3):431-447.

Morrison, R.I.G., B.J. McCaffery, R.E. Gill, S.K. Skagen, S.L. Jones, G.W. Page, C.L. Gratto-Trevor, and B.A. Andres. 2006. Population estimates of North American shorebirds, 2006. *Wader Study Group Bulletin* 111:67-85.

Thaxton, J. and P. Thaxton. 1996. The oldest semipalmated sandpiper on record. *Kingbird* 46(4):308-309.

U.S. Fish and Wildlife Service. 2003. Delaware Bay Shorebird-Horseshoe Crab Assessment Report and Peer Review. U.S. Fish and Wildlife Service Migratory Bird Publication R9-03/02. Arlington, VA. 99 p.

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