

# The Shorebirds of Cheyenne Bottoms

## A Summary of the International Shorebird Survey

2000 – 2020



Robert L. Penner II  
Avian Conservation Manager  
The Nature Conservancy

The Nature Conservancy 



I decided to put together this document for a **few** reasons. First, it serves as a report of the findings of the International Shorebird Survey. Second, it is my hope that readers will find it useful when trying to decide the best time to visit Cheyenne Bottoms in search of certain species of shorebirds. Finally, it is simply a way for me to express my interest in shorebirds and my concern for their future.

The species photos are from the “Birds in Focus” website provided by Bob Gress, Judd Patterson and David Seibel. Whereas, the cover photos were provided by Tom Blandford and the whole document was edited by Susan Smith.

The area status and associated graph is a summation of observations taken from the records the staff of the Kansas Department of Wildlife, Parks and Tourism have kept for years, along with my notes and data from the International Shorebird Survey.

The daily high count was gathered from the records from the International Shorebird Survey. It should be noted that there are records that contain different high counts from other sources, but I choose to use only the records from the survey.

The habitat section is taken from notes of my observations over the years. Although these are not hard and fast rules, these are the habitats at Cheyenne Bottoms that the species can usually be found using.

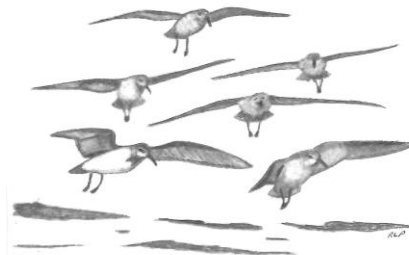
The section on conservation status comes from four different sources: Audubon’s “Climate Report” and The Cornell Lab of Ornithology’s “All About Birds” website, as well as the “State of the Birds” and “Watch List” reports, which are compiled by the U.S. Committee of the North American Bird Conservation Initiative (NABCI).

The population trend graphs and the chronology graphs for each species represent the findings from the International Shorebird Survey, which has been conducted since the 1970s. Shorebirds are experiencing some of the deepest population declines of any group of birds. As such, their population trends and migration chronology have changed significantly, even in just the past fifteen to twenty years. It should be noted that most shorebirds are arriving at Cheyenne Bottoms earlier than what has been documented in the past and this reflects what is happening across the hemisphere. The population trend graph only uses data from the past twenty years as I believe data from further back is no longer relevant, whereas species chronology includes survey data back to 1980. The International Shorebird Survey methodology is designed to survey the same site once every ten days. The ten-day time frame is based on the theory that, on the average, there is a complete turnover of birds within that period. In other words, those birds counted ten days earlier are for the most part gone and now a whole new group of individuals have taken their place. There will be some exceptions, especially when it comes to those birds that are planning to stay and nest. With the installation of Motus Wildlife Tracking Towers at Cheyenne Bottoms in the fall of 2020 it is hoped that data collected will help refine the turnover rates of shorebirds in the region and provide better population estimates.

The range map and interesting facts were taken from The Cornell Lab of Ornithology’s “All About Birds” website.

And finally, the drawings were done by me.

Robert L. Penner II



Page 3	Black-bellied Plover
Page 6	American Golden-Plover
Page 9	Snowy Plover
Page 12	Semipalmated Plover
Page 15	Piping Plover
Page 18	Killdeer
Page 21	Mountain Plover
Page 23	Black-necked Stilt
Page 26	American Avocet
Page 29	Spotted Sandpiper
Page 32	Solitary Sandpiper
Page 35	Greater Yellowlegs
Page 38	Willet
Page 41	Lesser Yellowlegs
Page 44	Upland Sandpiper
Page 47	Whimbrel
Page 50	Long-billed Curlew
Page 53	Hudsonian Godwit
Page 56	Marbled Godwit
Page 59	Ruddy Turnstone
Page 62	Little Stint
Page 63	Red Knot
Page 65	Sanderling
Page 68	Semipalmated Sandpiper
Page 72	Western Sandpiper
Page 75	Least Sandpiper
Page 78	White-rumped Sandpiper
Page 81	Baird's Sandpiper
Page 84	Pectoral Sandpiper
Page 87	Dunlin
Page 90	Curlew Sandpiper
Page 91	Stilt Sandpiper
Page 94	Buff-breasted Sandpiper
Page 96	Ruff
Page 97	Dowitchers
Page 100	Wilson's Snipe
Page 103	American Woodcock
Page 105	Wilson's Phalarope
Page 108	Red-necked Phalarope
Page 110	Red Phalarope
Page 111	Spring Chronology
Page 112	Most Common Shorebirds

# Black-bellied Plover

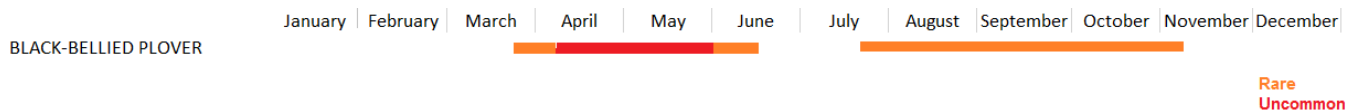
*Pluvialis squatarola*



With nearly forty years of conducting shorebird surveys in Nebraska and Kansas, the Black-bellied Plover remains on my list as one of the more elusive of shorebirds. The good birders always seem to find a few at Cheyenne Bottoms most years; I, on the other hand, still find it a treat to spot one or perhaps a small group of these plovers. Most of my observations have usually been in wet meadow habitat. Although it has been many years, since I identified my very first Black-bellied Plover up in Nebraska, I can still remember that day like it was only a few months ago.

## Area Status:

An uncommon migrant. This species is usually more common during spring migration than during the fall. Early spring migrants have been recorded in mid-March, but the peak of migration is early April into mid-June. The average first of the season observation date is around April 21<sup>st</sup>. Early fall migrants have been recorded in late July, but the peak is from early August into late November. The average first of the fall migration observation date is August 18th.



## High Count:

855 were recorded in May of 1986.

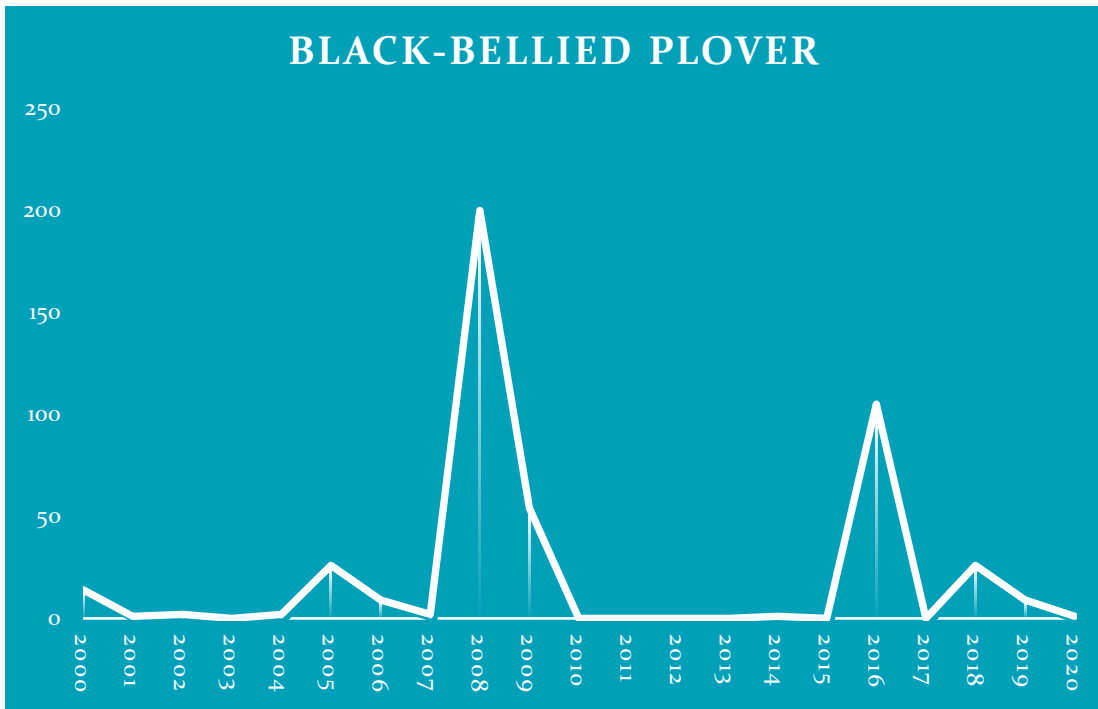
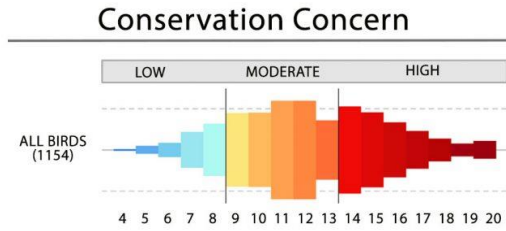
## Habitat:

Usually found on the exposed mudflats along the large pools and in wet meadows; sometimes in the low growing grasslands and plowed fields surrounding the wetlands. This plover is a terrestrial and aquatic gleaner which means it prefers to feed in dry to slightly saturated areas with vegetation that is either lacking or is sparse and short. Its preferred foraging depth ranges from upland sites to water about 1 inch in depth.

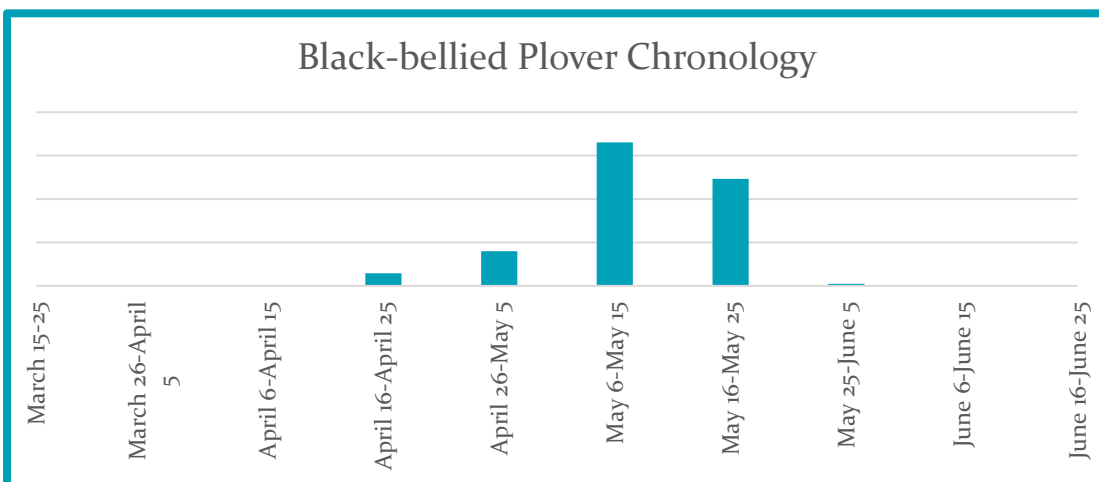
## Conservation Status:

This species may be more sensitive to disturbance than many other birds because it is especially wary, flushing at long distances at nest and during feeding and roosting. Nevertheless, no evidence for desertion of nest or roost sites have been noticed. The breeding habitat seems secure everywhere because it is far beyond most human occupation and development. Exploitation of arctic oil fields would cause some habitat loss but unlikely to be severe, at least in the near future. Threats to coastal wetlands and concerns about staging areas apply to this species, geographically and ecologically wide-ranging but with definite concentration points. The widespread Black-bellied Plover breeds across the high latitudes of North America and Eurasia where it primarily inhabits flat coastal plains. The species' winter range at the present time, is chiefly coastal and mainly southerly. Climate models show only a modest overall decrease in wintering areas with suitable climate space; however, the models also show a substantial shifting of that habitat northward and, more intriguingly, inland. The Black-bellied Plover is versatile and tolerant of a wide range of prey bases and water salinities. Wildlife scientists will be watching to see if it can adapt to newly available winter habitats in the eastern Great Lakes.

The Black-bellied Plover has a Conservation Concern Ranking of 11.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



**Black-bellied Plover**  
*Pluvialis squatarola*



- Wary and quick to give alarm calls, the Black-bellied Plover functions worldwide as a sentinel for mixed groups of shorebirds. These qualities allowed it to resist market hunters, and it remained common when populations of other species of comparable size were devastated.
- The Black-bellied Plover is the only American plover that has a hind toe on its foot. The hind toe, however, is so small that it is difficult to see in the field.
- The oldest recorded Black-bellied Plover was at least 12 years, 8 months old when it was found in California.

# American Golden-Plover

*Pluvialis dominica*



The American Golden-Plover is a rare site at Cheyenne Bottoms as this is a bird that prefers upland habitat. It is much more common in the Flint Hills of Kansas than at Cheyenne Bottoms. The Nature Conservancy initiated a grassland management plan to improve stopover habitat for grassland shorebirds in 2017 and we have seen a slight increase in this species visiting Cheyenne Bottoms in the spring. I was fortunate to have served as a project leader for the Flint Hills Shorebird Surveys which ran from 2011-2018. During that time, I recorded flocks of American Golden-Plover in the thousands. The site of thousands of plovers feeding in a recently burned pasture ranks as one of my top wildlife experiences, not only is it a sensory overload, but it also is a feeling that is just hard to describe.

### Area Status:

A very rare migrant. Early migrants have been sighted in late March with spring migration running into late May. The average first of the season observation date is April 16th. Early fall migrants have been observed in late July, but the peak of fall migration runs from early September into late October. The average first of the fall migration observation date is September 14th.



### High Count:

550 were recorded in September of 1981.

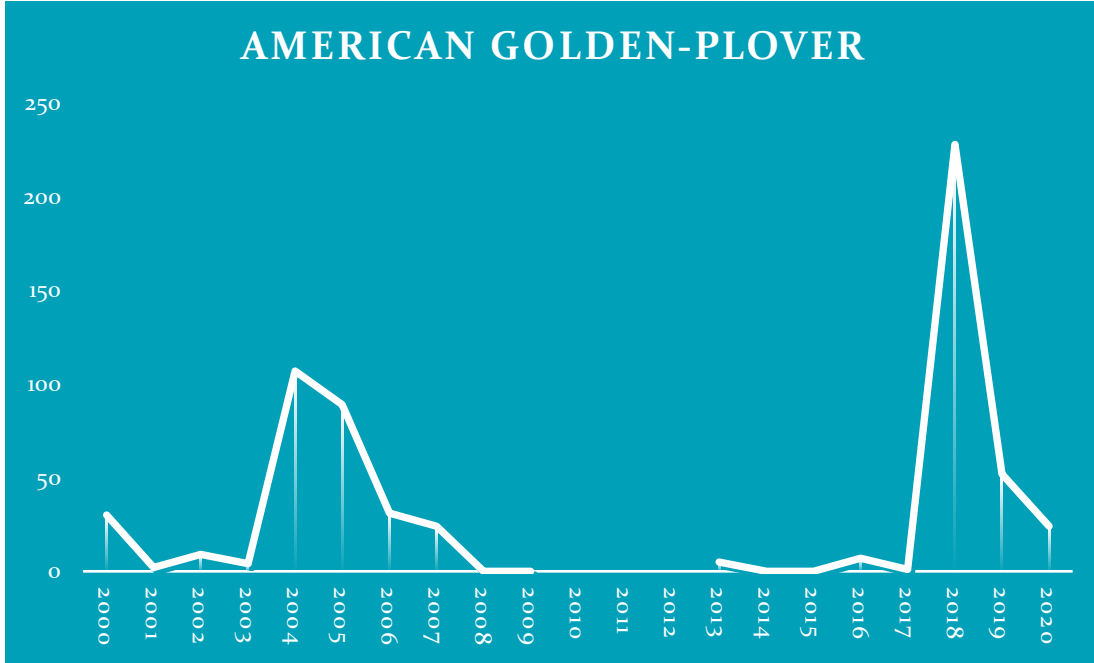
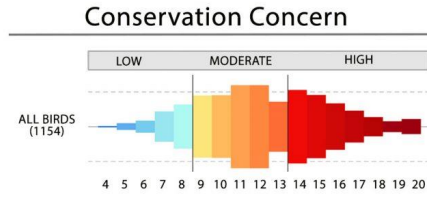
### Habitat:

It prefers recently burned prairie and pastures, but can be found in wet meadows, plowed fields, sparse stubble fields and on dry mudflats. This plover is mostly a terrestrial gleaner, extracting insects such as grasshoppers, crickets and locust from the soil surface. It prefers to feed in dry to slightly wet areas that either have no vegetation or the vegetation is short and sparse.

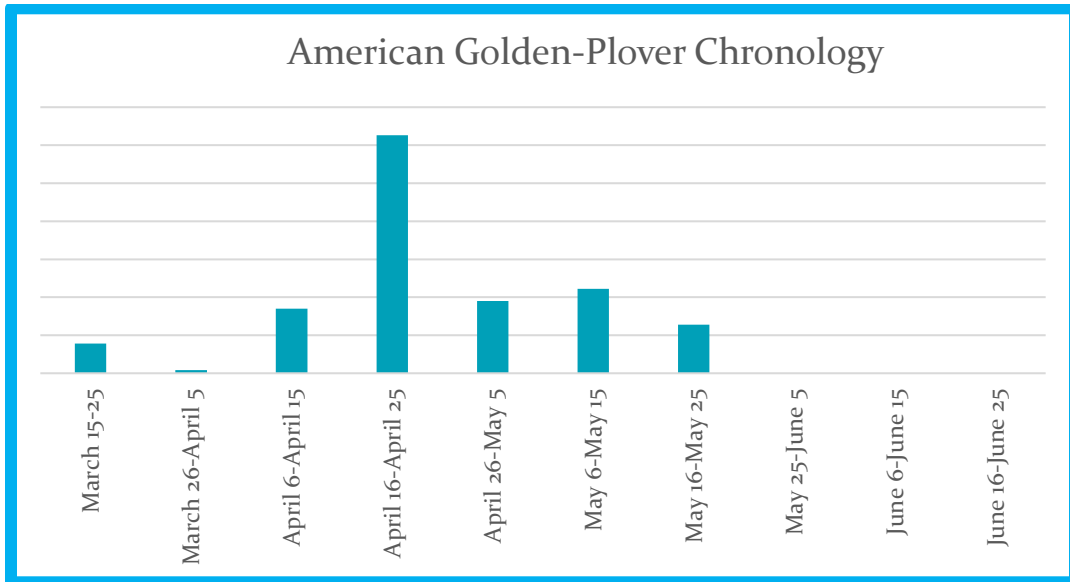
### Conservation Status:

One of the most stirring spectacles of spring migration is the American Golden-Plover's northward migration through the Midwest, en route to breeding grounds along the Arctic Ocean's broad coastal plain. Vast numbers were shot in late 19th century, and the population apparently has never recovered to historic levels. It may be limited now by loss of habitat on South American wintering range. Climate models show substantial loss of suitable climate space in summer as the southern portions of the present range become unavailable. Managers will also have to be attuned to indirect effects of climate change on the golden-plover's habitat: everything from surging numbers of tundra-devouring Snow Geese to more humans and infrastructure associated with commerce and energy development. This species is on the State of the Birds Watch List, which lists species most in danger of extinction without significant conservation action.

The American Golden-Plover has a Conservation Concern Ranking of 13

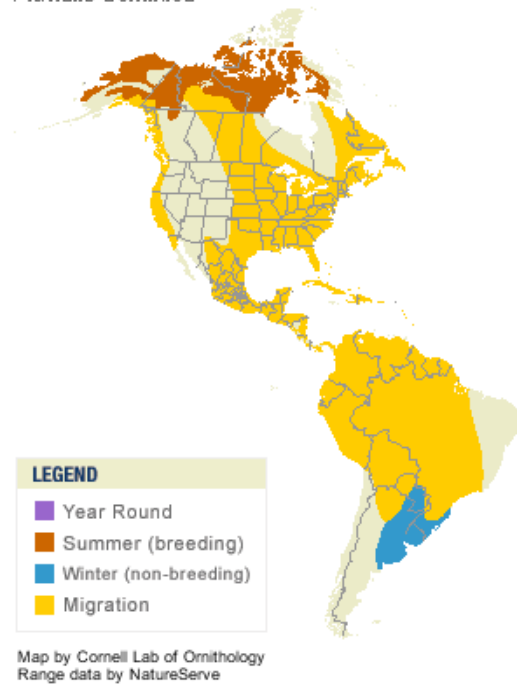


The International Shorebird Survey was not conducted in 2010, 2011, and 2012





American Golden-Plover  
*Pluvialis dominica*



- The American Golden-Plover has a long, circular migration route. In the fall, it flies offshore from the East Coast of North America nonstop to South America. On the return in the spring it passes primarily through the middle of North America to reach its Arctic breeding grounds.
- Adult American Golden-Plovers leave their Arctic breeding grounds in early summer, but juveniles usually linger until late summer or fall. Some adults arrive on the wintering grounds in southern South America before the last juveniles have left the Arctic.
- The oldest American Golden-Plover was at least 13 years old, when it was recaptured and rereleased during a banding operation in Alaska.

# Snowy Plover

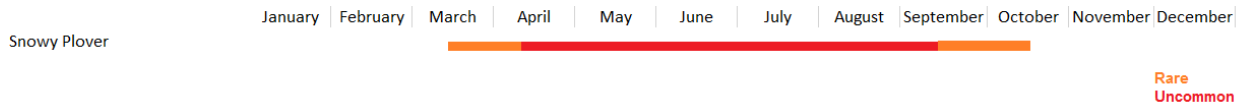
## *Charadrius nivosus*



Little ghosts along the roadside is how I would describe the Snowy Plover. Although they nest in small numbers at Cheyenne Bottoms, I have the most luck finding them during a rainy day feeding right on the dike roads that transverse the pools. Since I call shorebirds “diamonds along the waters edge” I guess I would have to call these little guys the “gems of the roadside.”

### Area Status:

An uncommon migrant and summer resident. Early spring migrants have been recorded in mid-March. The average first of the season observation date is April 10th. A small population usually remains in the area to nest during the summer. Fall migration runs from early September into early October.



### High Count:

61 were recorded in April of 1981.

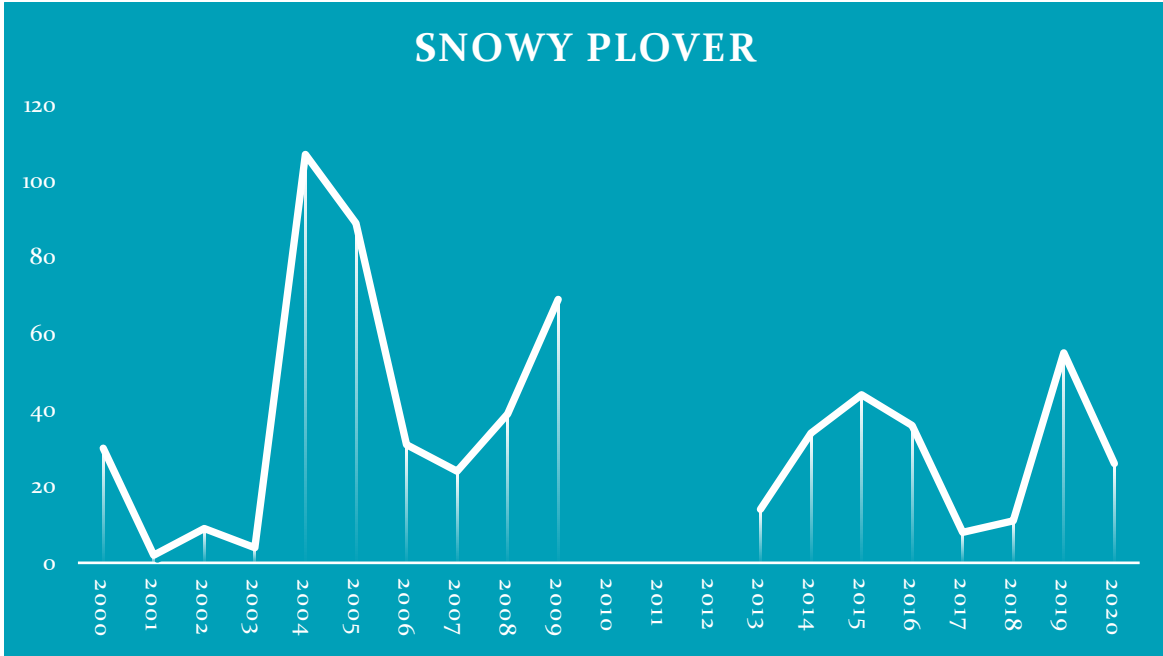
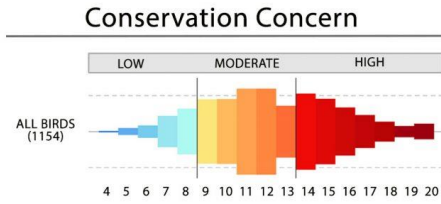
### Habitat:

This plover is mostly a terrestrial feeder that prefers to search for insects and insect larvae on sparsely vegetated areas such as dry mud flats, exposed shorelines, and gravel or dirt roadbeds. Rarely is it found in water greater than ½ inch in depth.

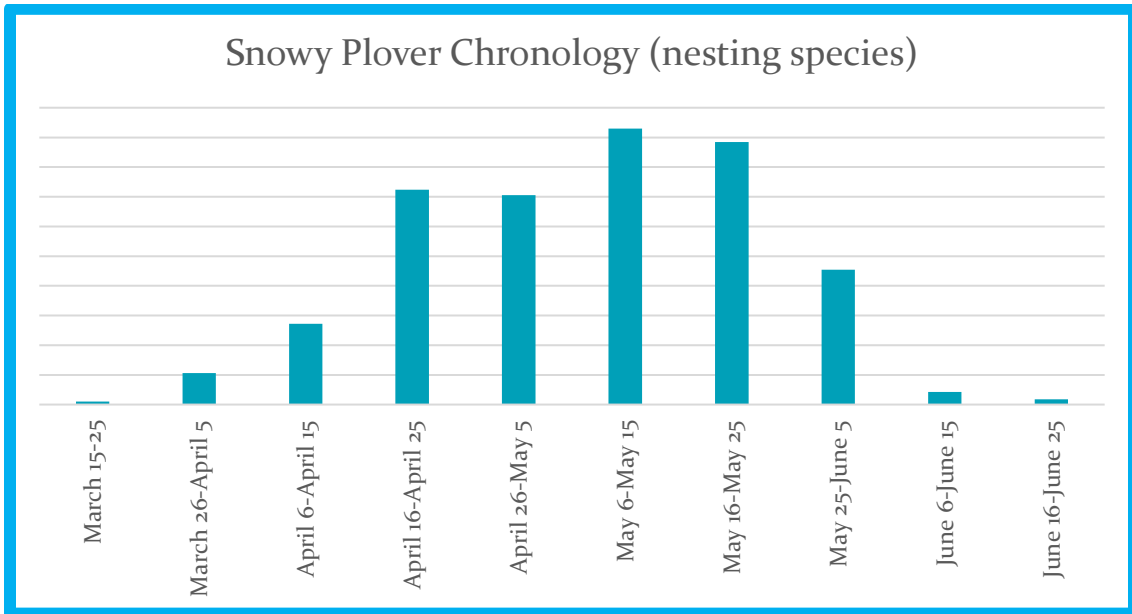
### Conservation Status:

The Snowy Plover is a paradox; tolerant of some of the most inhospitable habitats in North America, yet quite sensitive to human and natural disturbances. This bird breeds on sunbaked, highly alkaline salt flats, and winters on exposed coastal mudflats. Climate models, focusing only on the winter range, forecast a 56 percent loss of current range by 2080, with potential expansion inland and northward of such areas. Whether ideal habitat of extensive open regions in immediate proximity to open water becomes available will be the chief determinant of the Snowy Plover’s ability to adjust to changing climate. Along the coasts, habitat degradation, caused primarily by expanding beach-front development and recreation, has likely been responsible for a significant decline in the size of breeding populations. The use of the exotic beach grass to stabilize dunes along the Pacific Coast has also reduced the extent of open nesting habitat. Frequent mechanical raking of beaches for removal of garbage, kelp, and other debris on the southern California coast makes beaches unsuitable for nesting and probably harms food resources for wintering plovers. In the Great Plains, breeding habitat has contracted on many wetlands due to invasive plants such as cattail, salt cedar and phragmites. These plants also provide cover for predators, which prey on plover eggs and chicks. Elsewhere, breeding habitat along rivers is degraded by damming, water withdrawals, and vegetation encroachment. In the Playa Lakes region, a decrease in the volume of springs from pumping of the Ogallala aquifer and sedimentation from agriculture has a potentially negative impact on plover nesting.

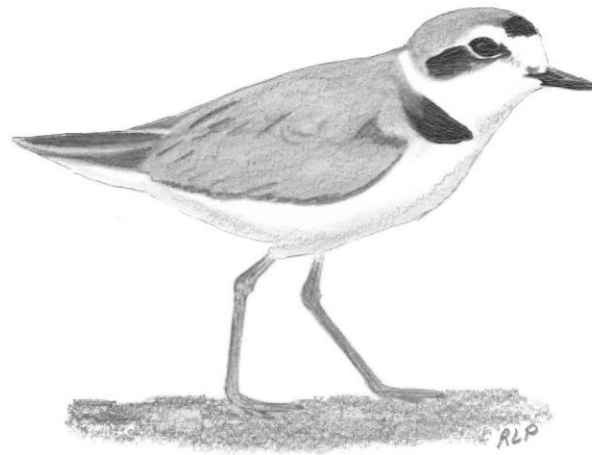
The Snowy Plover has a Conservation Concern Ranking of 15



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Snowy Plover  
*Charadrius nivosus*



- Young Snowy Plovers leave their nest within three hours of hatching. They flatten themselves on the ground when a parent signals the approach of people or potential predators. They walk, run, and swim well and forage unassisted by parents, but require periodic brooding for many days after hatching.
- The oldest recorded Snowy Plover was at least 15 years, 2 months old, when it was spotted in the wild in California and identified by its band.
- The Snowy Plover frequently raises two broods a year, and sometimes three, in places where the breeding season is long. The female deserts her mate and brood about the time the chicks hatch and initiates a new breeding attempt with a different m

# Semipalmated Plover

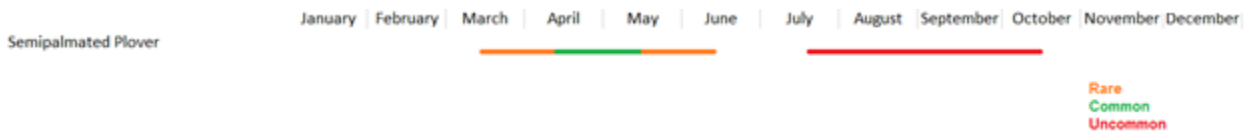
*Charadrius semipalmatus*



The Semipalmated Plover is one of five plover species that are found at Cheyenne Bottoms that generally have similar appearances. If you are new to bird watching these five birds might be a little difficult to identify at first, but it will not take long to be able to separate the species. The Semipalmated Plover is a small dark shorebird with a single band across its chest. After the Killdeer, it is the most common plover seen on migration during most years.

### Area Status:

A common spring migrant and a rare summer visitor. Spring migration may run from late March into early June, with the peak usually between mid-April and mid-May. The average first of the season observation date is April 16th. Fall migration runs from late July into mid-October.



### High Count:

471 were recorded in May of 1983.

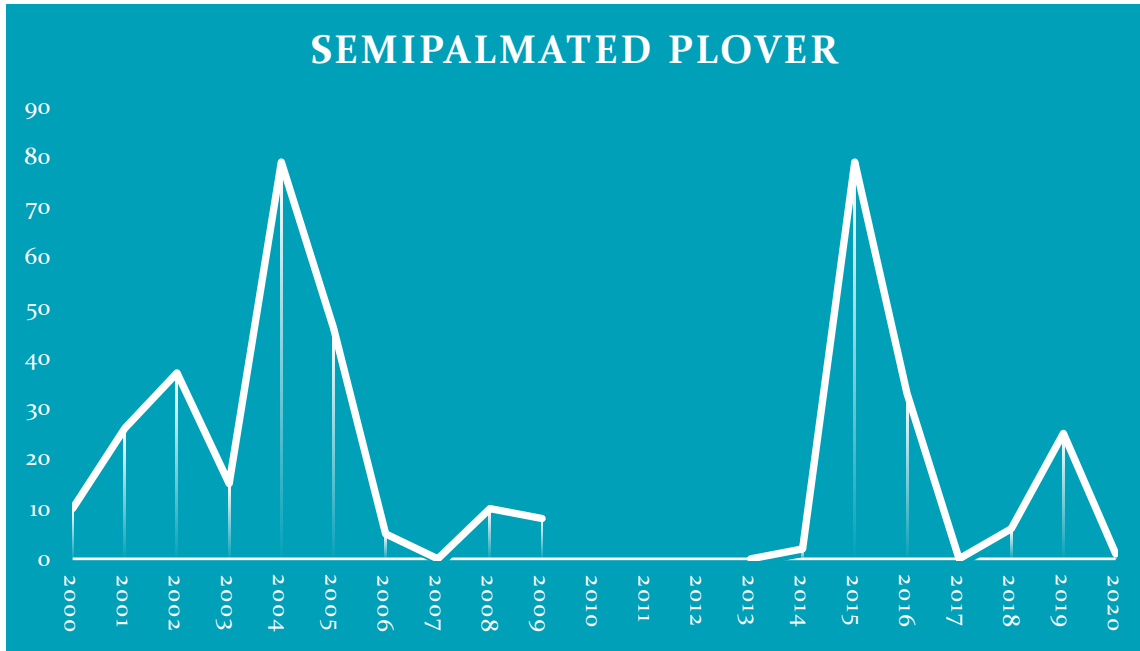
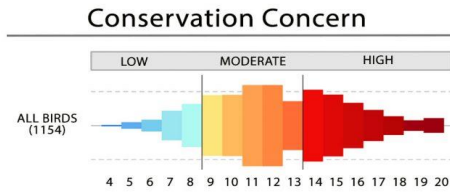
### Habitat:

Like the other plovers that visit Cheyenne Bottoms, the Semipalmated Plover uses habitats that consist of open areas such as gravelly, sandy or muddy shorelines, as well as wet and dry mudflats and usually in water with depths less than one inch.

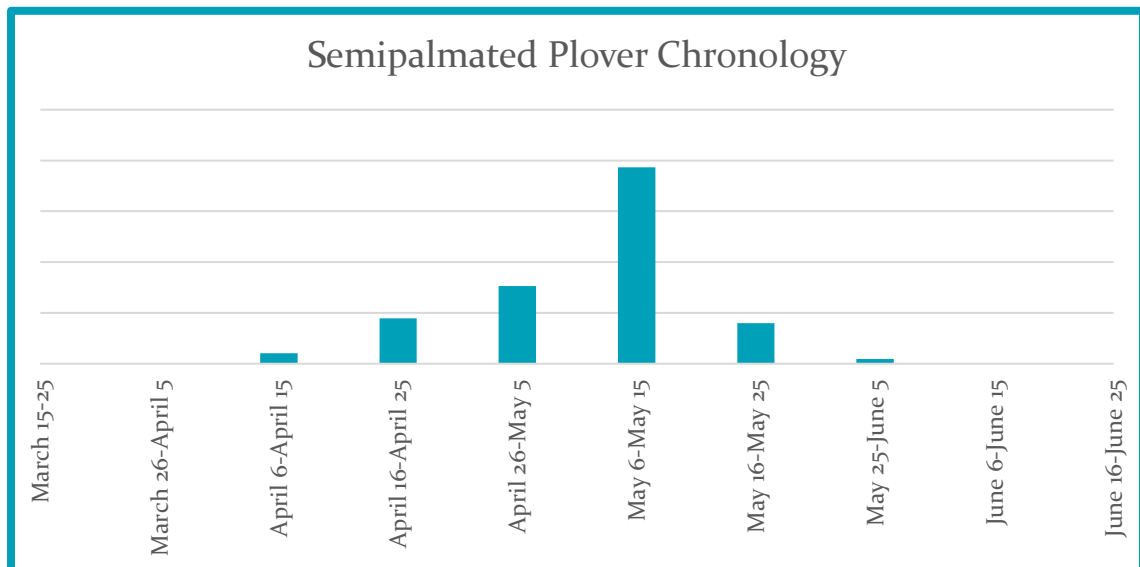
### Conservation Status:

This Arctic nester is known to most U.S. birders as a widespread migrant inland and a common winter visitor along the southern shore. Climate models show a rapid shift of wintertime areas with suitable climate, with only 27 percent remaining stable. The transition from coastal to inland habitats would be dramatic, but perhaps it will be able to colonize increasingly ice-free inland lakes, reservoirs, and river edges. Meanwhile, this plover's large, but generally little-known, breeding range is forecast to contract somewhat by century's end, with losses of areas with suitable climate in the southern portions of the species' present range.

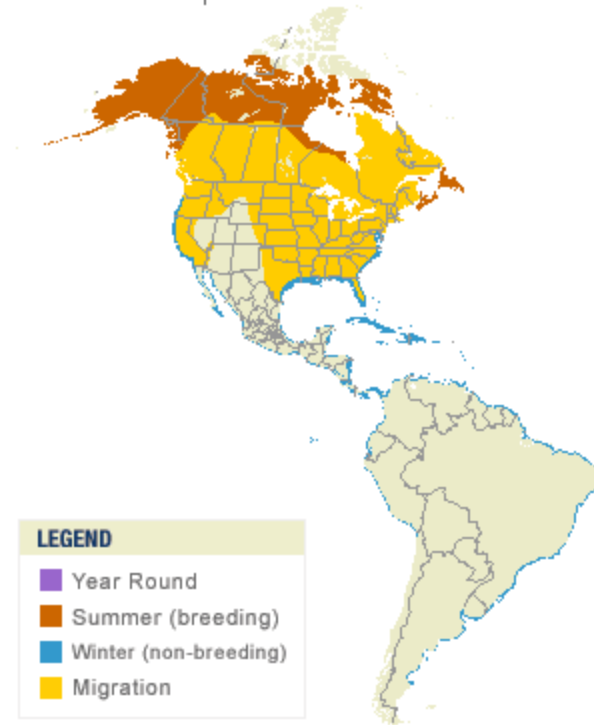
The Semipalmated Plover has a Conservation Concern Ranking of 10.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012

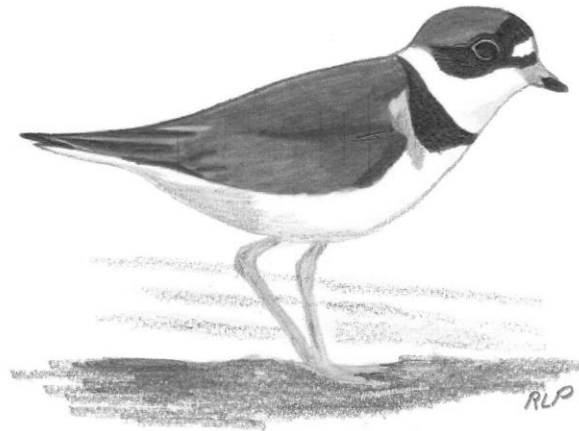


Semipalmated Plover  
*Charadrius semipalmatus*



LEGEND	
■	Year Round
■	Summer (breeding)
■	Winter (non-breeding)
■	Migration

Map by Cornell Lab of Ornithology  
Range data by NatureServe



- The Semipalmated Plover has been seen to swim short distances across small water channels, during foraging, while on migration. Chicks also swim short distances to follow parents to small islands on shallow lakes.
- The oldest recorded Semipalmated Plover was at least 9 years, 2 months old when it was recaptured and rereleased during banding operations in Massachusetts.

# Piping Plover

*Charadrius melodus*



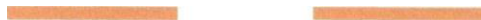
I just don't have that much experience with the Piping Plover, it is a rare bird at Cheyenne Bottoms. I have seen very few during my twenty-four years working at the Bottoms. When I do get to see an individual or if I am lucky, a few individuals, I consider it a very special day. There have been a few times when a large flock has been recorded by someone, but as far as the International Shorebird Survey goes, a few dozen birds would be a good day.

### Area Status:

A very rare migrant. Spring migration runs from late March into late May. The average first of the season observation date is around April 24th. Fall migration runs from early July into mid-September, with the average first of the fall migration date being around July 26th.

January February March April May June July August September October November December

Piping Plover



Rare

### High Count:

100 were recorded in May of 2005.

### Habitat:

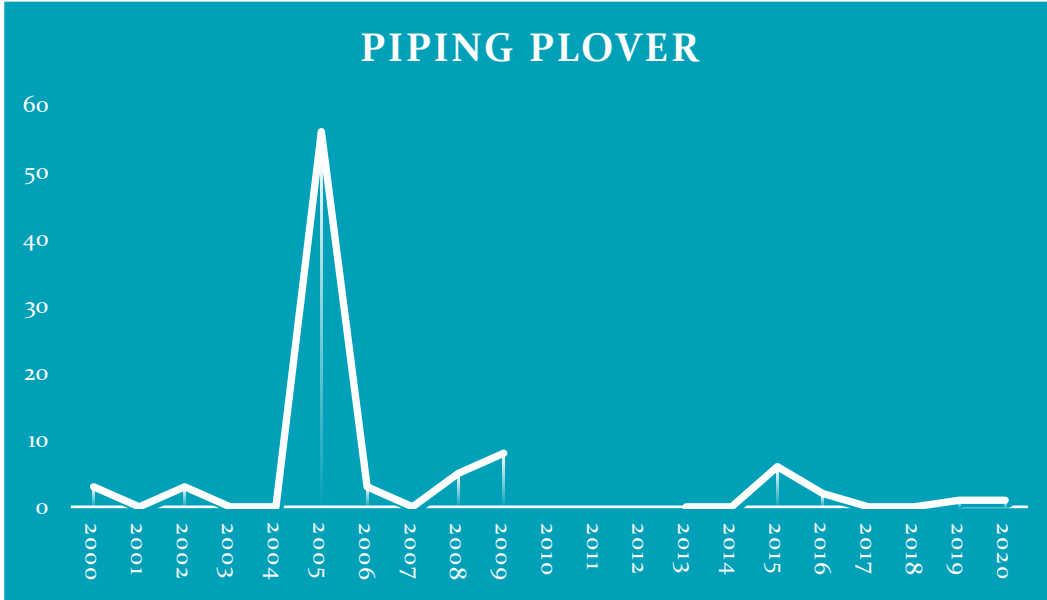
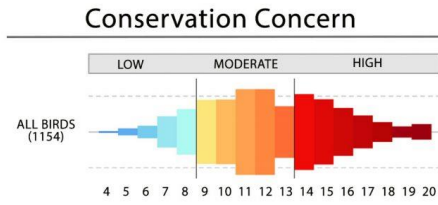
Like the other members of the plover family, the Piping Plover prefers sparsely vegetated areas including both wet and dry mud flats and exposed shorelines. It is rarely found in water more than ½ inch in depth.

### Conservation Status:

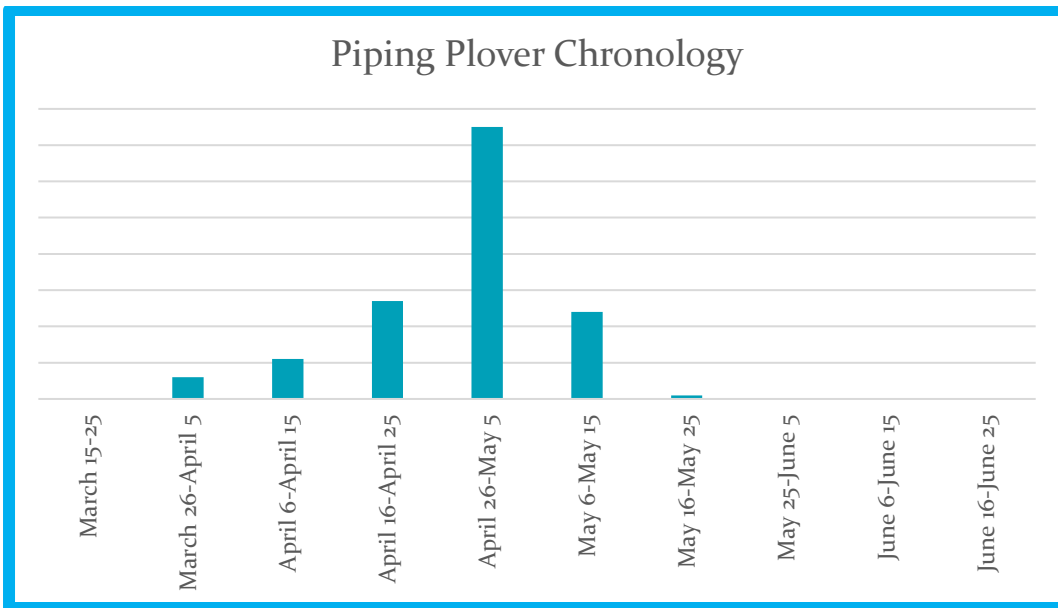
The Piping Plover is a threatened and endangered shorebird that inhabits wide, open beaches, alkali flats, and sand flats of North America. This iconic shorebird is projected to lose more than 29 percent of its non-breeding range by 2080, with only 38 percent of its original summer range remaining, based on climate models. Coastal areas of Texas, Louisiana, and the Bahamas will become increasingly suitable, even as other areas decrease. Climatic suitability along the Atlantic shoreline is projected to move north in the winter, overlapping with breeding range. However, sea level rise is likely to become a critical issue for this coastal-dependent species in both summer and winter seasons. Local conservation efforts on breeding sites include closing portions of beaches where birds are nesting, construction of predator exclosures around nests, implementing appropriate water level regulation policies, a variety of techniques to control vegetation, addition of gravel, and in some cases, nest relocation to prevent flooding, captive-rearing, and creation of artificial habitat. Intensive management at breeding sites is not ideal in that methods are temporary, and the success of certain methods is uncertain and controversial.



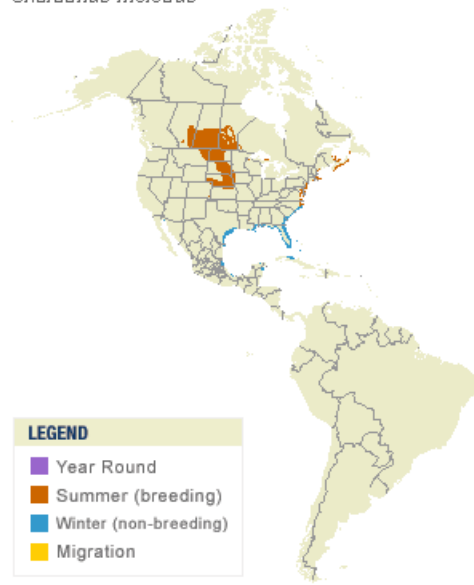
The Piping Plover has a Conservation Concern Ranking of 15



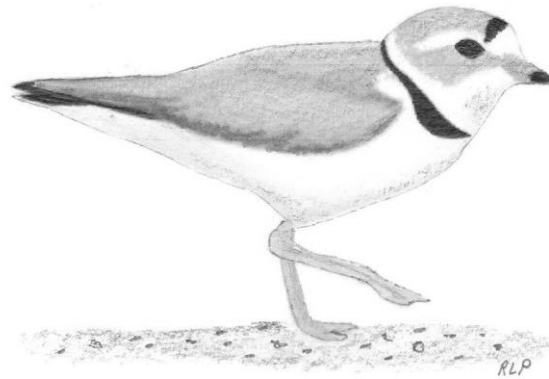
The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Piping Plover  
*Charadrius melodus*



Map by Cornell Lab of Ornithology  
Range data by NatureServe



- Intruders near a Piping Plover nest are chased and may be pecked or bitten. In Manitoba, one Killdeer was observed entering a Piping Plover territory where it was bitten so hard on the leg that it limped for the rest of the summer.
- The oldest recorded Piping Plover was at least 13 years, 8 months old, when it was spotted and identified by its band in Texas in 2015. It had been banded in Saskatchewan in 2002.

# Killdeer

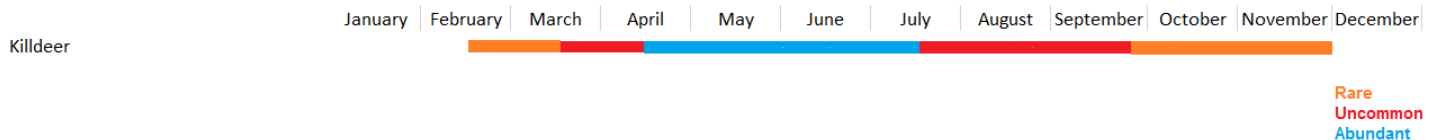
*Charadrius vociferous*



I can't help liking the Killdeer, perhaps one of the most noticeable of all shorebirds at Cheyenne Bottoms; not because it can be found in substantial numbers during migration, but because it nests along the roadsides and in the middle of access roads, and so it is seen on a regular basis from March into November. Some years I have the honor of hosting a nesting pair in my driveway or yard and I take extra care not to cause any disturbance around the nest. It was a very long time ago when I started surveying shorebirds, so I am not 100% positive, but I am guessing this was the first shorebird I learned to identify.

### Area Status:

An abundant migrant, common in the summer and rare in the winter. Spring migration starts in early February, with the average first of the season observation date being around February 28th. This species is a summer resident at Cheyenne Bottoms. Most birds have headed south by late November.



### High Count:

8,940 were recorded in August of 1984.

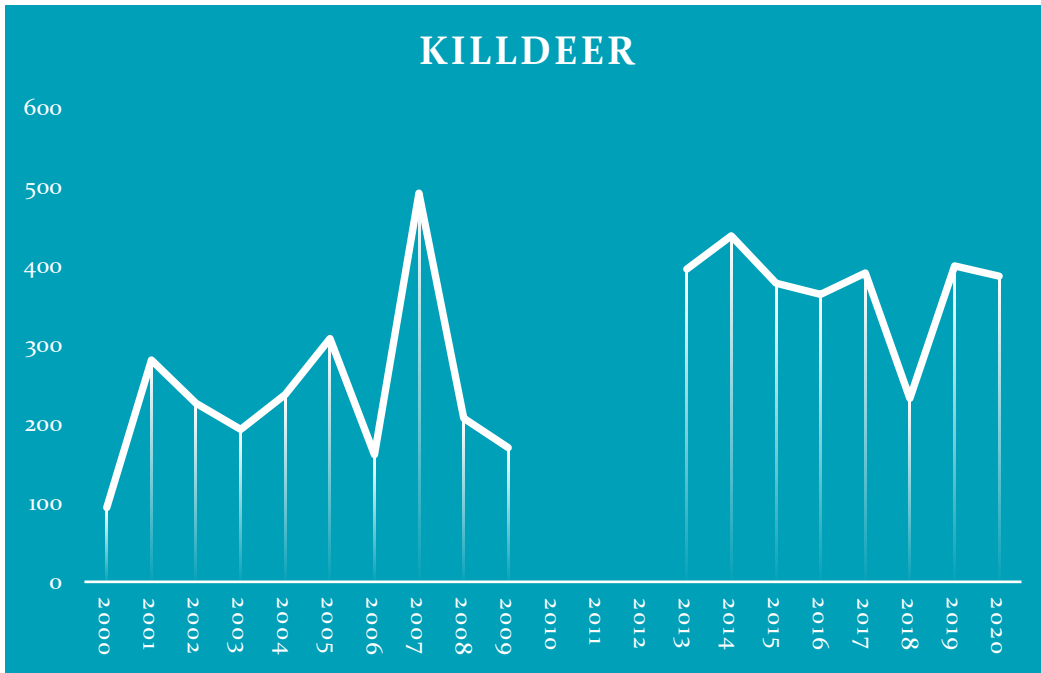
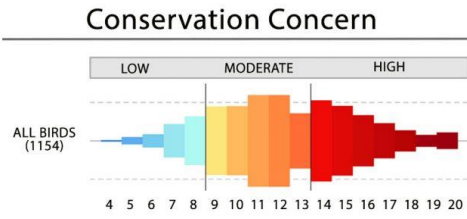
### Habitat:

Killdeer inhabit open areas such as sandbars, mudflats, and grazed fields. They are also familiar around towns, where they live on lawns, driveways, athletic fields, parking lots, airports, and golf courses. Generally, the vegetation in fields inhabited by Killdeer is no taller than one inch. You can find Killdeer near water, but unlike many other shorebirds, they are also common in dry areas.

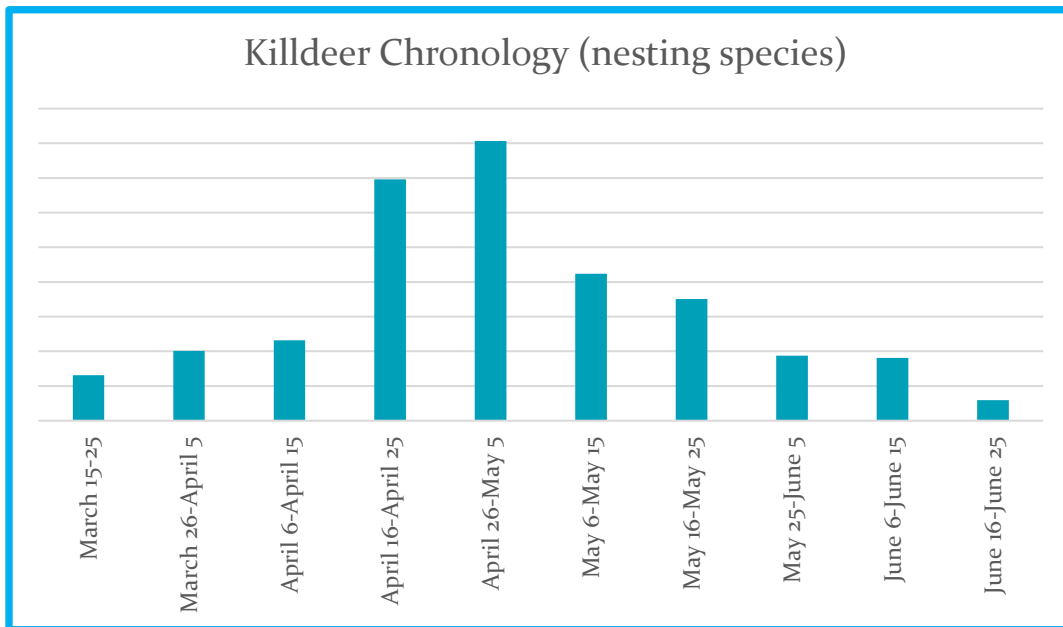
### Conservation Status:

The Killdeer is one of the most successful shorebirds because of its fondness for human modified habitats and its willingness to nest close to people. Killdeer populations declined overall by about 47% between 1966 and 2014, with steeper declines in Canada and the Western United States, this according to the North American Breeding Bird Survey. A 2012 study estimates about 2 million breeding birds in North America, an increase over numbers reported in a 2006 study. These birds are found throughout the year in North America, while Canada is host to mainly breeding birds. They can also be found in Central America and parts of South America and Europe. Because they live so close to people, however, Killdeer are vulnerable to pesticide poisoning and collisions with cars and buildings.

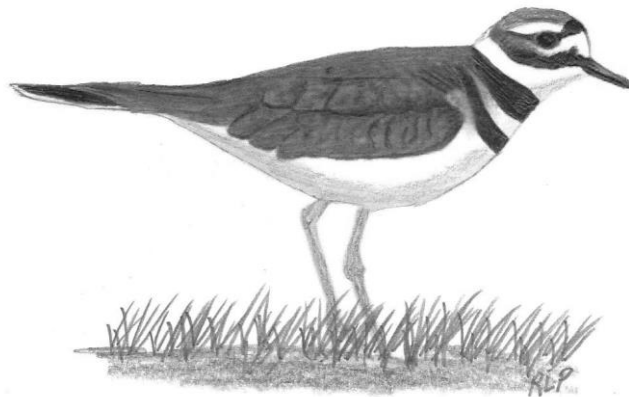
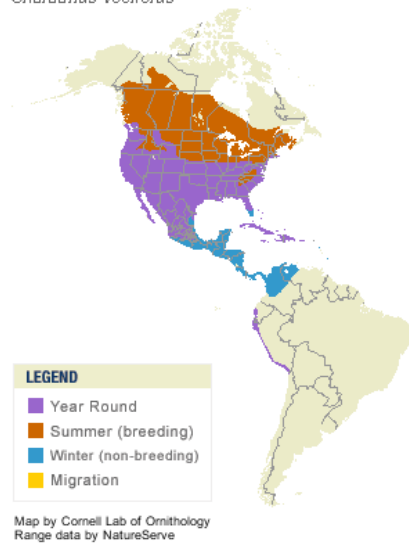
The Killdeer has a Conservation Concern Ranking of 11.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Killdeer  
*Charadrius vociferus*



- The Killdeer's broken-wing act leads predators away from a nest but doesn't keep cows or horses from stepping on eggs. To guard against large hoofed animals, the Killdeer uses a quite different display, fluffing itself up, displaying its tail over its head, and running at the beast to attempt to make it change its path.
- A well-known denizen of dry habitats, the Killdeer is a proficient swimmer. Adults swim well in swift-flowing water, and chicks can swim across small streams.
- The male and female of a mated pair pick out a nesting site through a ritual known as a scrape ceremony. The male lowers his breast to the ground and scrapes a shallow depression with his feet. The female then approaches, head lowered, and takes his place. The male then stands with body tilted slightly forward, tail raised and spread, calling rapidly. Mating often follows.
- The oldest recorded Killdeer was at least 10 years, 11 months old when it was recaptured and rereleased during banding operations in Kansas.

# Mountain Plover

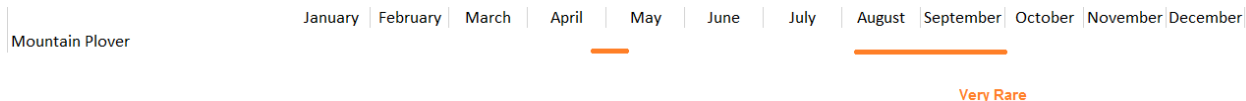
*Charadrius montanus*



My experience with Mountain Plovers at Cheyenne Bottoms is extremely limited. I have only seen a few individuals during my twenty-four years working on the area. In fact, no Mountain Plovers have been recorded on the International Shorebird Survey and only a handful of observations exist for the area. My most memorable experience with this species occurred in Colorado while conducting a Field Ornithology Course. I had the pleasure of observing dozens of these birds on a private ranch, these birds were running around and nesting under large cactus plants, which to me seemed a little strange for a shorebird.

## Area Status:

An accidental fall migrant. Many of the sightings have been during the months of August and September and usually only one or two individuals at a time. There are also a couple of sightings of individual birds in the spring.



## High Count:

2 were recorded in August of 2009.

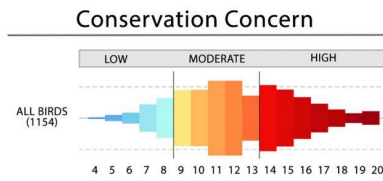
## Habitat:

Like other plovers, the Mountain Plover is a terrestrial feeder that prefers to search for insects and insect larvae in dry and sparsely vegetated areas. When at Cheyenne Bottoms it prefers dry mud flats with little or no vegetation. It breeds on open plains at moderate elevation and winters in short-grass plains, plowed fields, and sandy deserts.

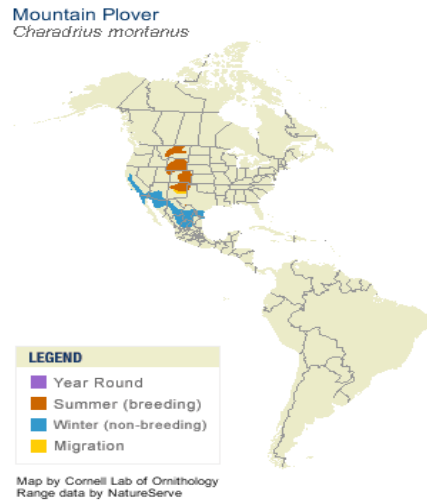
## Conservation Status:

The Mountain Plover's name is a misnomer because it breeds on shortgrass prairies and winters in lowland agricultural districts. Fire suppression and cattle grazing have already taken a toll on this imperiled species' prairie habitat. More recently, climate change has been invoked as a factor contributing to declining habitat, and climate models corroborate that hypothesis by projecting that the species will lose over three-quarters of current winter and summer ranges. And although areas of acceptable wintering climate are forecast to expand somewhat, they are in regions facing expanding human populations and/or changing land-use practices. Mountain Plover populations have declined by over 3% per year between 1966 and 2014, resulting in a cumulative decline of 80%, according to the North American Breeding Bird Survey. A 2012 study estimates a breeding population of 20,000. These birds only live in North America, principally in the west and central areas of the U.S. during the summer, migrating south to Mexico and the southwest U.S. The Mountain Plover is on the State of the Birds Watch List, which lists species most in danger of extinction without significant conservation action.

The Mountain Plover has a Conservation Concern Ranking of 16.



There are not enough records for Cheyenne Bottoms to develop a population trend graph or chronology.



- The Mountain Plover is one of the species that uses prairie dog towns to provide suitable breeding habitat in areas of longer grasses.
- The oldest recorded Mountain Plover was at least 10 years old when it was sighted in Montana in the wild and identified by its band. It had been banded in the same state.

# Black-necked Stilt

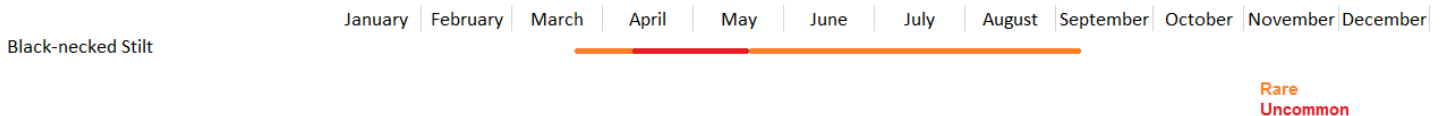
*Himantopus mexicanus*



Seeing the Black-necked Stilt is always a treat. Some years only a few turn up at Cheyenne Bottoms, whereas in other years there may be dozens of these birds on any given day. Its name is very descriptive of the bird; it is a large shorebird that walks just as if it was on stilts. A friend of mine once said the bird reminded her of how she walked after having a little too much to drink.

### Area Status:

A rare migrant with numbers increasing in April and May during migration, then dropping down to a rare summer resident. Somewhat variable in the numbers recorded from year to year. Spring migrants start arriving in late March, with the average first of the season observation date being around April 12<sup>th</sup>. Most of the birds have migrated south by mid-September.



### High Count:

250 were recorded in July of 2015.

### Habitat:

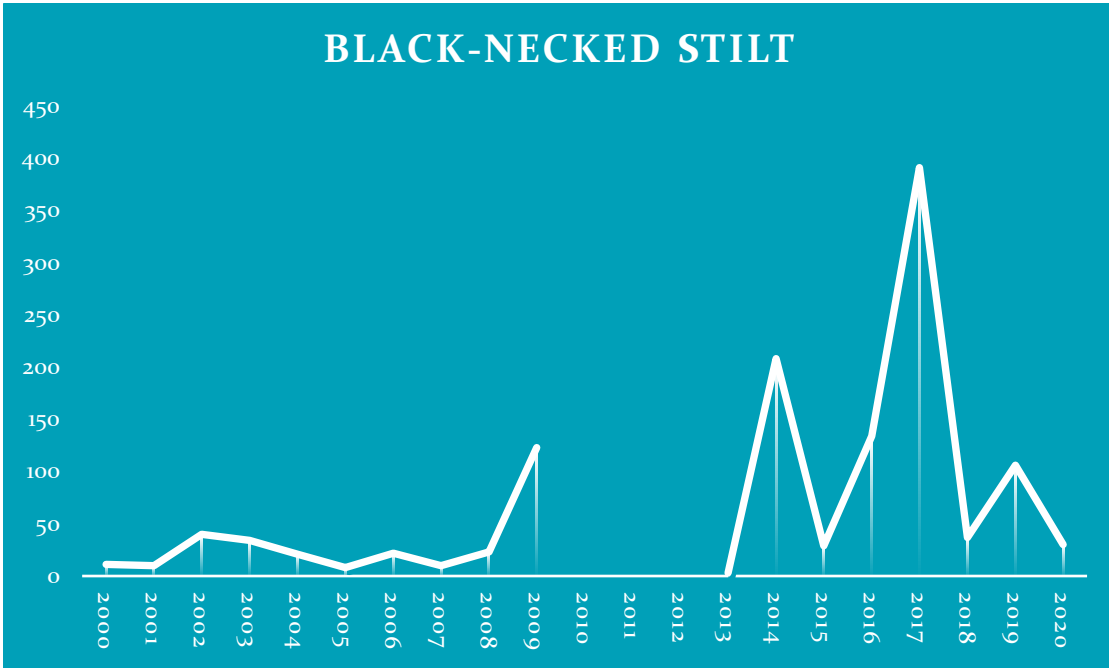
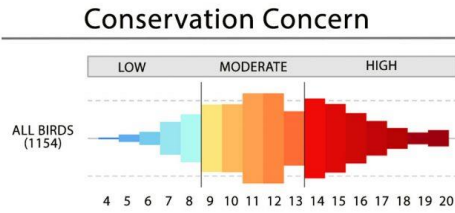
The Black-necked Stilt is an aquatic gleaner and sweeper, which means it prefers to pick its prey from the water surface or sweep back and forth with its bill until it finds suitable prey to eat. It is usually found feeding in open and shallow water with very little or no plant cover and usually in depths that range from 2 inches to around 8 inches.

### Conservation Status:

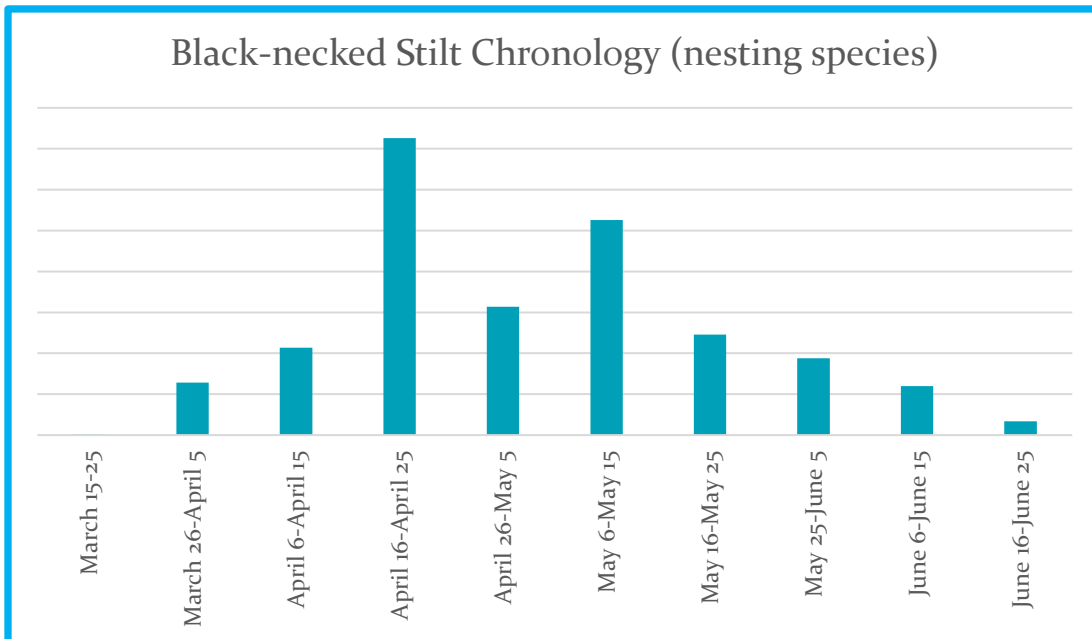
Black-necked Stilt populations appear stable and increased between 1966 and 2014 in the continental U.S., according to the North American Breeding Bird Survey. Because stilts are wetland birds, they are vulnerable to polluted runoff including pesticides and especially selenium. Stilts are sometimes monitored as indicators of contaminated irrigation water in the environment at large. In Hawaii, invasive aquatic plants deprive stilts of open water and mudflats. In the nineteenth century stilts were hunted throughout their range.



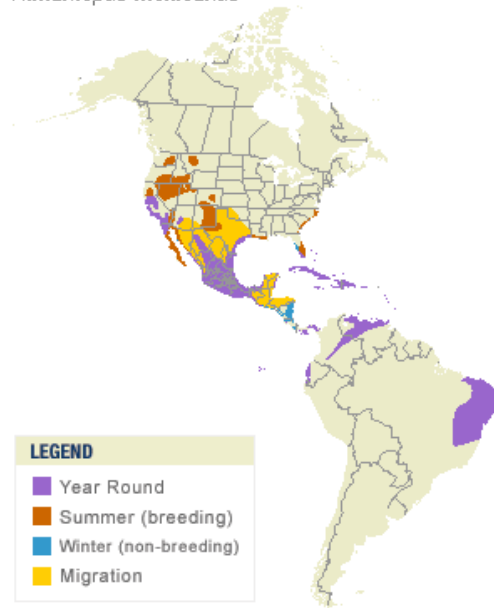
The Black-necked Stilt has a Conservation Concern Ranking of 8.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



**Black-necked Stilt**  
*Himantopus mexicanus*



LEGEND	
Year Round	Summer (breeding)
Winter (non-breeding)	Migration

Map by Cornell Lab of Ornithology  
Range data by NatureServe



- Five species of rather similar-looking stilts are recognized in the genus *Himantopus*. They have the second-longest legs in proportion to their bodies of any bird, exceeded only by flamingos.
- The Hawaiian subspecies of Black-necked Stilt has the black of its neck reaching much farther forward than the mainland forms. Habitat loss and hunting led to the decline in its numbers. It uses primarily the few freshwater wetlands found on the Hawaiian Islands.
- The oldest recorded Black-necked Stilt was at least 12 years, 5 months old. It was banded in Venezuela and found in the Lesser Antilles.

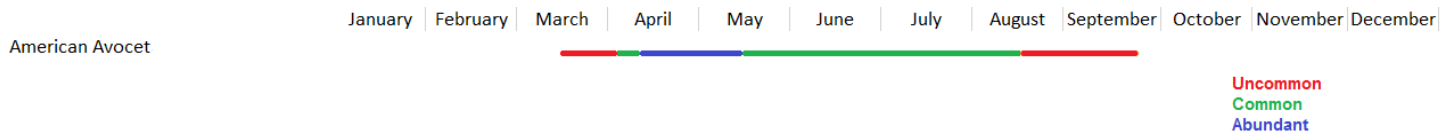
## American Avocet *Recurvirostra americana*



The American Avocet might be considered the mascot of Cheyenne Bottoms. The Kansas Wetlands Education Center has this bird on their logo because this is a large and showy shorebird that can be observed in large numbers during spring and fall migration and most years good numbers remain to breed during the summer. Their large size, black wings and salmon colored head and neck make it an easy bird to identify. Even during the hot dry days of July and August, it is not unusual to find small groups feeding in the shallow water.

### Area Status:

The American Avocet is an abundant spring and fall migrant and is a common to uncommon summer resident depending on the water levels. Early spring migrants start arriving in mid-March, with peak migration occurring in April into early May. The average first of the season observation is around April 1<sup>st</sup>.



### High Count:

6,212 were recorded in April of 1984.

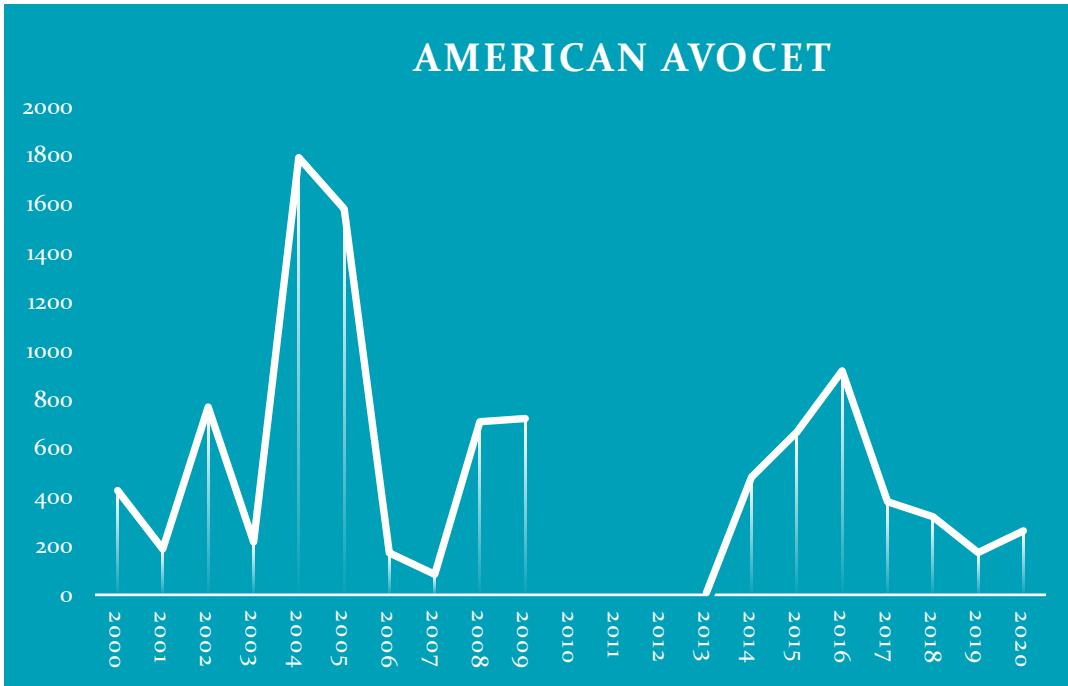
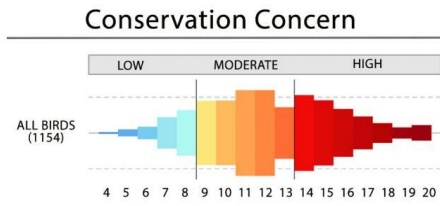
### Habitat:

The American Avocet is an aquatic gleaner and sweeper, which means it prefers to pick its prey from the water surface or sweep back and forth with its bill until it finds suitable prey to eat. It is usually found feeding in vegetation-free shallow water and exposed shorelines and usually in depths that range from 3 inches to around 8 inches or more.

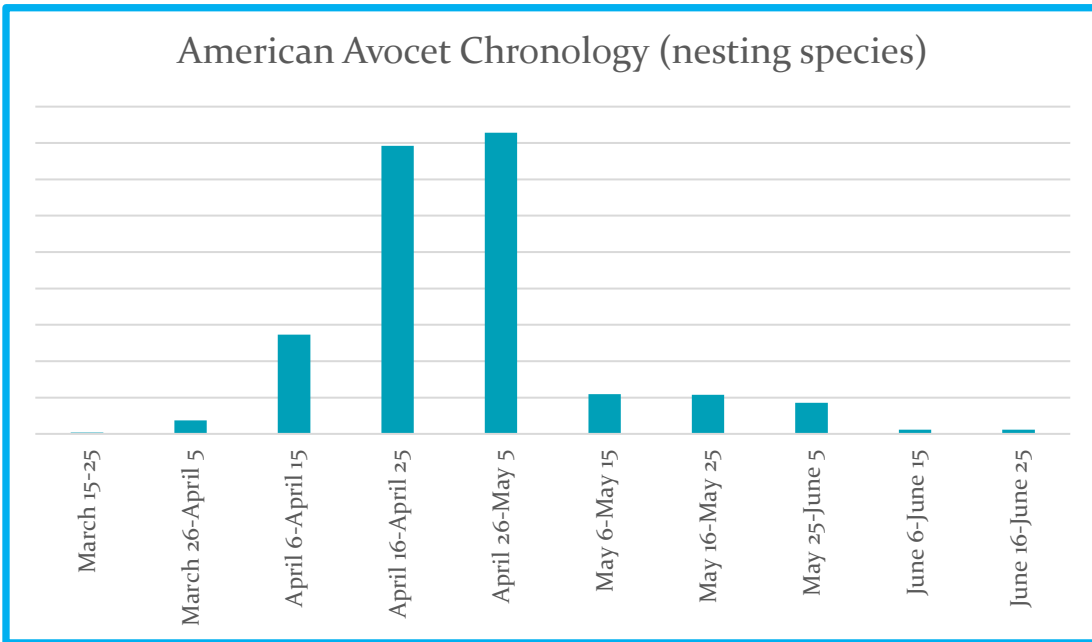
### Conservation Status:

The American Avocet prefers hot, open environments in shallow fresh and saltwater marshes. Climate models project that its core nesting areas, widely scattered in the West but centered chiefly in the northern Great Plains, may contract drastically. Areas of suitable climate in winter, currently concentrated in the southern U.S., are forecast to shift northward somewhat and to increase overall. The American Avocet is a species that already benefits from active management of wetlands, and it seems likely that climate change will necessitate additional intervention by wildlife managers, especially on the breeding grounds. Populations declined in the 1960s and 1970s, largely from the loss of wetlands from water diversion for human use. Contamination of wetland habitat with selenium caused increased developmental abnormalities and mortality. Since 1995, owners of selenium-contaminated sites in northern California have been required to provide safe wetland habitat for the species. Breeding success on the newly created sites has been much greater than initially expected, but long-term prospects for breeding at these sites are not clear. Since 2004 numbers appear to be increasing in many areas according to the North American Breeding Bird Survey.

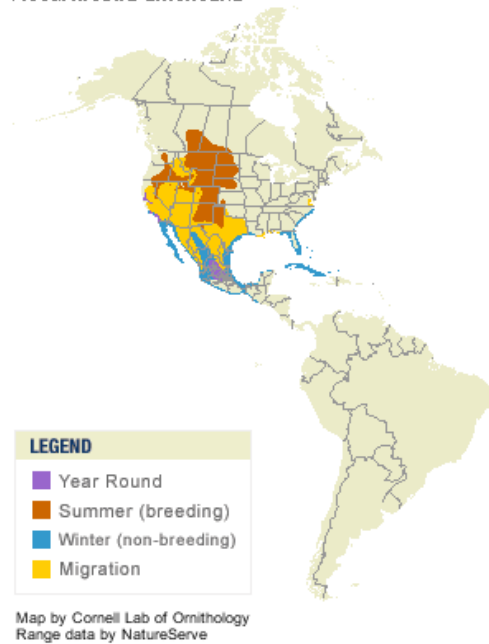
The American Avocet has a Conservation Concern Ranking of 12.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



American Avocet  
*Recurvirostra americana*



- In response to predators, the American Avocet sometimes issues a series of call notes that gradually change pitch, simulating the Doppler effect and thus making its approach seem faster than it is.
- Nesting American Avocets aggressively attack predators, sometimes physically striking Northern Harriers or Common Ravens.
- American Avocet chicks leave the nest within 24 hours after hatching. Day-old avocets can walk, swim, and even dive to escape predators.
- The oldest recorded American Avocet was over 15 years old, when it was found in California, where it had been banded a decade and a half earlier.

# Spotted Sandpiper

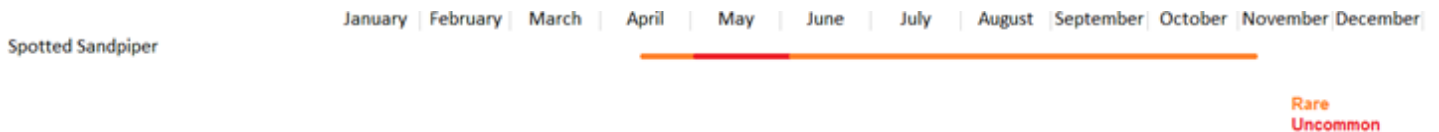
*Actitis macularius*



I would be hard pressed to name my favorite shorebird, maybe it is because like all other birds, my favorite bird depends on the season. The Spotted Sandpiper is a somewhat uncommon spring migrant; it is usually never seen in large numbers and the numbers recorded can be quite variable from year to year. However, a small number sometimes will spend the summer at Cheyenne Bottoms to nest. So, to see a Spotted Sandpiper in August, would qualify it as my favorite bird for that month.

## Area Status:

The Spotted Sandpiper is an uncommon spring migrant and a very rare summer resident. Spring migrants start arriving in mid-April, with the average first of the season observation being around April 20<sup>th</sup>. Most of the migrants have moved on by the end of May, but a very small number may remain during the summer. Fall migration begins in early July and most of the birds are gone by early November.



## High Count:

182 were recorded in May of 1981.

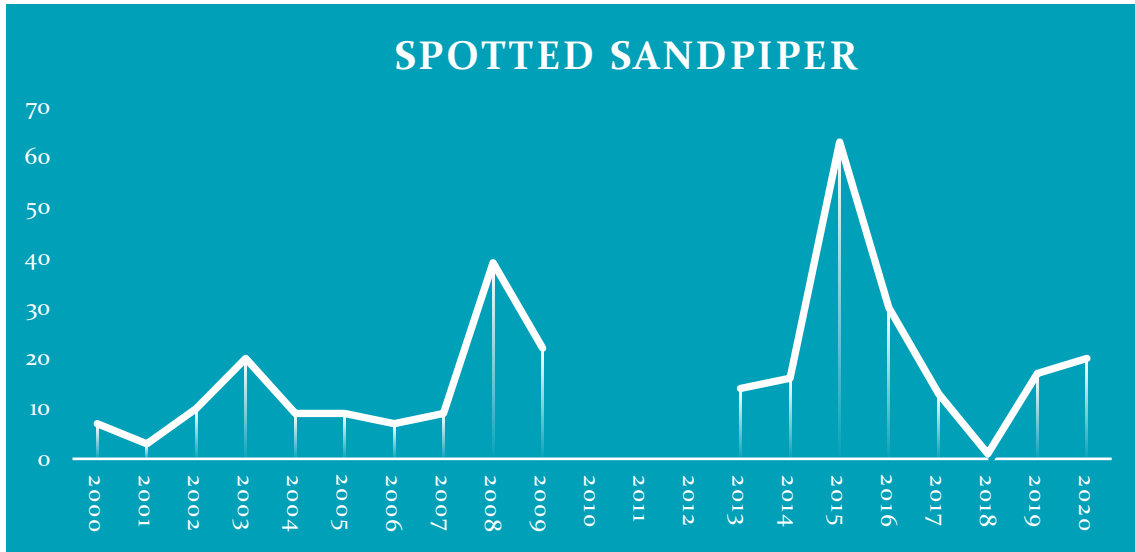
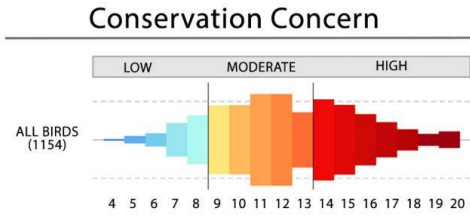
## Habitat:

The Spotted Sandpiper prefers to feed in rocky or gravelly shorelines adjacent to open water, but usually does not venture into water deeper than ½ inch in depth.

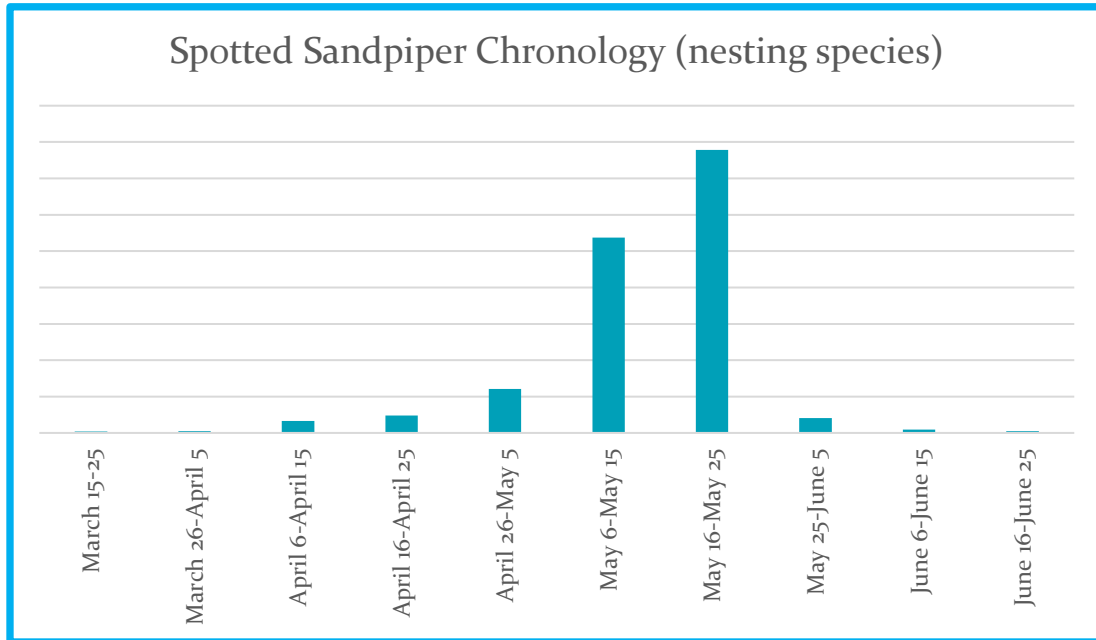
## Conservation Status:

The Spotted Sandpiper is one of our most versatile sandpipers, breeding in diverse aquatic habitats and wintering widely across the southern United States and into South America. Climate models forecast a 57 percent loss of current summer range, with general northward drifts, but unevenly partitioned between summer and winter: wintertime areas of climatic suitability are predicted to more than double, while climatic suitability in summer may cause a slight decrease in the overall availability of nesting habitat. The complex mating systems of the Spotted Sandpiper have been shown to vary with climate and latitude, and it remains to be seen whether this bird's courtship biology will be able to evolve in response to a northward migration of the breeding range. The Spotted Sandpiper is the most widespread breeding sandpiper in North America, but populations declined by almost 1.5% per year between 1966 and 2014, resulting in a cumulative decline of 51%, according to the North American Breeding Bird Survey. On a local scale, development and loss of their wetland habitat or compromised water quality (from pesticides, herbicides, or other runoff) can harm these sandpipers' ability to feed and raise young.

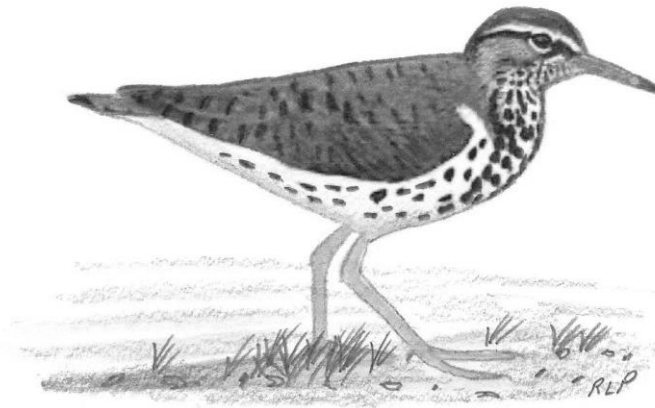
The Spotted Sandpiper has a Conservation Concern Ranking of 9.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Spotted Sandpiper  
*Actitis macularius*



- Female Spotted Sandpipers sometimes practice an unusual breeding strategy called polyandry, where one female mates with up to four males, each of which then cares for a clutch of eggs. One female in Minnesota laid five clutches for three males in a month and a half. This odd arrangement does not happen everywhere and often they are monogamous, with the female pitching in to help a little.
- The female Spotted Sandpiper is the one who establishes and defends the territory. She arrives at the breeding grounds earlier than the male. In other species of migratory birds, where the male establishes the territory, he arrives earlier.
- The male takes the primary role in parental care, incubating the eggs and taking care of the young.
- The oldest recorded Spotted Sandpiper was a male, at least 12 years old when he was re-caught and re-released during banding operations in New York.



# Solitary Sandpiper

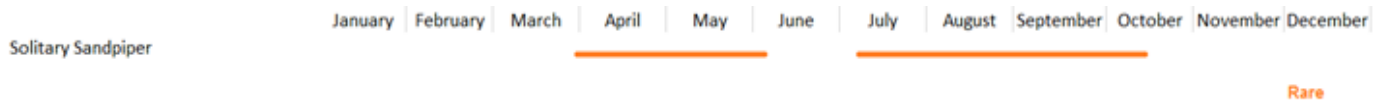
*Tringa solitaria*



The Solitary Sandpiper is usually seen in migration along the vegetative edge of the wetland basins, on the banks of creeks, and in flooded grasslands at Cheyenne Bottoms. While not truly solitary, it does not migrate in large flocks the way other shorebirds do. This is exhibited by the fact that very few have been recorded during the International Shorebird Surveys. In fact, I think I have seen more individual Solitary Sandpipers during the non-survey time period than during the survey.

## Area Status:

A rare migrant and summer visitor. Spring migrants start arriving in early April and may remain in the area until late May. The average first of the season observation date is around April 19th. Usually only individuals or small groups are observed.



## High Count:

82 were recorded in May of 1982.

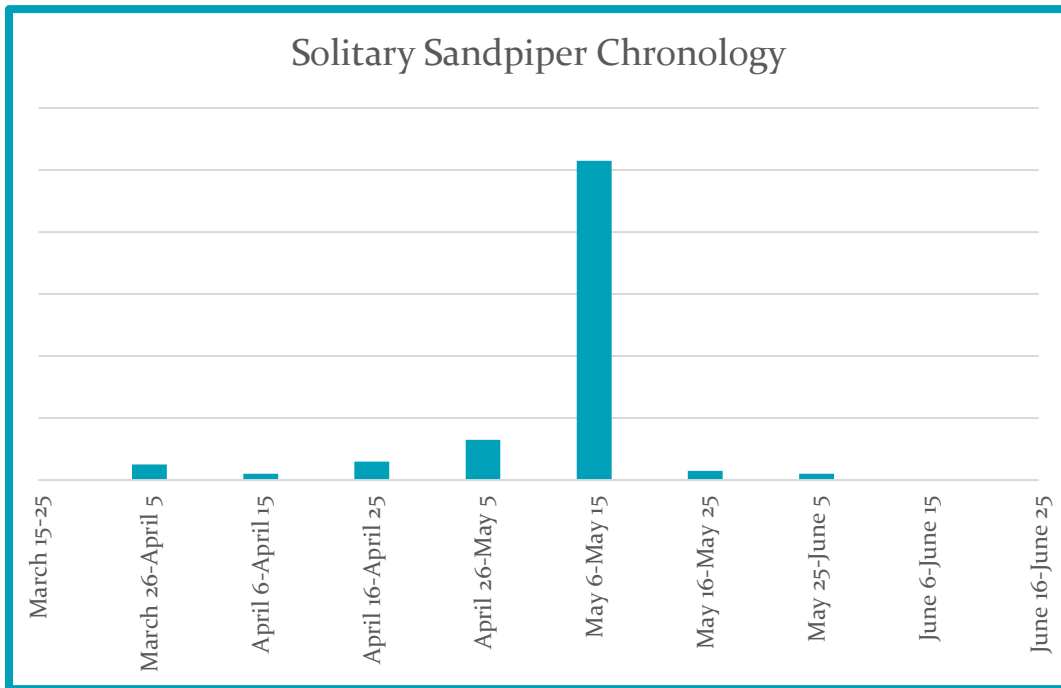
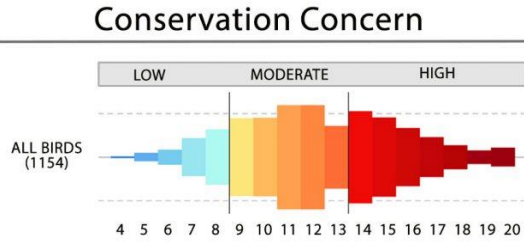
## Habitat:

The Solitary Sandpiper is an aquatic gleaner which means it prefers to feed by picking up insects and small crustaceans within shallow water and along the water's edge. It is almost always found along small pools of water surrounded by vegetation or along creek banks and in flooded grasslands.

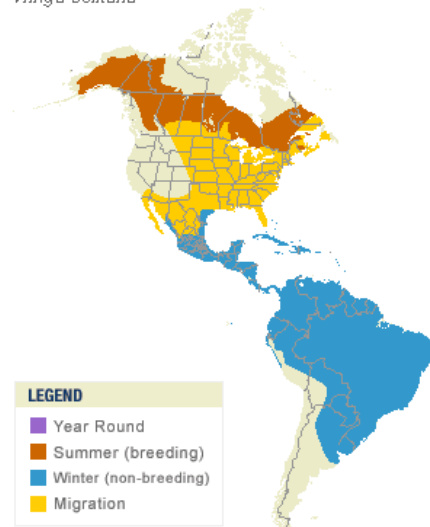
## Conservation Status:

The Solitary Sandpiper is considered common, but populations appear to have declined between 1966 and 2014, according to the North American Breeding Bird Survey. Like most sandpipers, this species favors vegetated wetlands—but with a hitch; the Solitary Sandpiper also relies upon woodlands in its annual cycle: it breeds in the wet northern woodlands and is found during migration and in winter on wooded ponds and streams. Climate models forecast a 93 percent loss of current summer range by 2080, with an overall northward movement. The Solitary Sandpiper's ability to track north may depend on whether the species' favored taiga breeding grounds also drift north as climate changes. On the wintering grounds, the species is likely to expand northward, with particularly impressive gains in the lower Mississippi River valley.

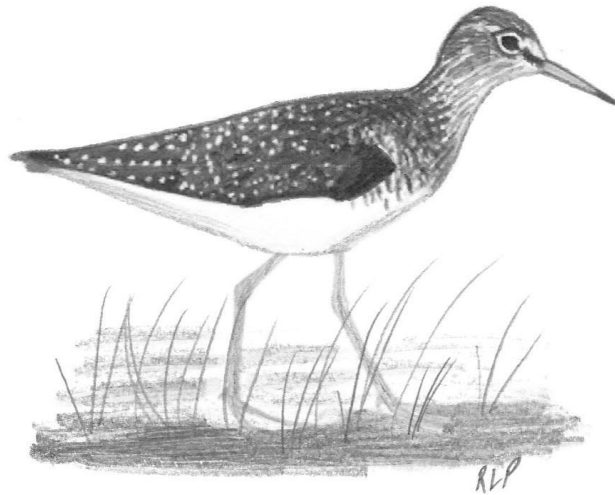
The Solitary Sandpiper has a Conservation Concern Ranking of 12.



Solitary Sandpiper  
*Tringa solitaria*



Map by Cornell Lab of Ornithology  
Range data by NatureServe



- Although the Solitary Sandpiper was first described by ornithologist Alexander Wilson in 1813, its nest was not discovered until 1903. Until that time, eggs and young of the Spotted Sandpiper were misidentified as those of the Solitary Sandpiper.
- The Solitary Sandpiper lays its eggs in the tree nests of several different songbirds, particularly those of the American Robin, Rusty Blackbird, Eastern Kingbird, Gray Jay, and Cedar Waxwing.
- Of the world's 85 sandpiper species, only the Solitary Sandpiper and the Green Sandpiper of Eurasia routinely lay eggs in tree nests instead of on the ground.

# Greater Yellowlegs

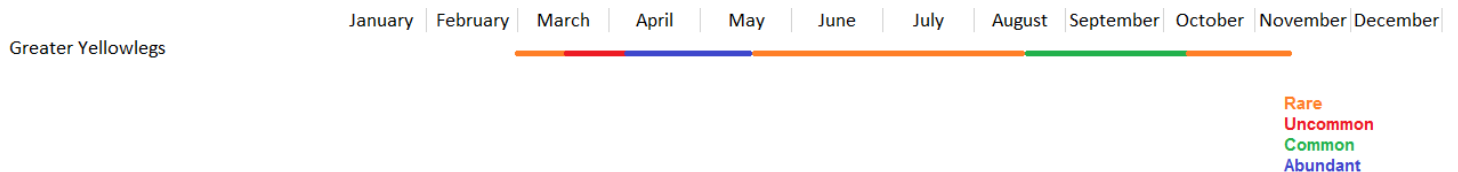
*Tringa melanoleuca*



If someone asked me what the chances are of seeing a Greater Yellowlegs during spring migration, I would say they were excellent. However, when looking at the thirty-six years of International Shorebird Survey data it became obvious that some years were better than others. This species can be seen by the thousands some years, where in other years only a handful of birds were recorded during the survey period. Yet, their large size and the fact that the Greater Yellowlegs frequently announces its presence by its piercing alarm calls, makes them one of the more noticeable and easily identified shorebirds that visit Cheyenne Bottoms.

## Area Status:

The Greater Yellowlegs is an abundant spring migrant and an accidental summer resident and winter visitor. Early spring migrants have been recorded in early February, but the peak of migration is from mid-March into late May. The average first of the season observation date is around March 19<sup>th</sup>, but it is becoming more common to find individual birds sooner. It has also been recorded during the Cheyenne Bottoms Christmas Bird Count a handful of years.



## High Count:

1,721 were recorded in April of 1994.

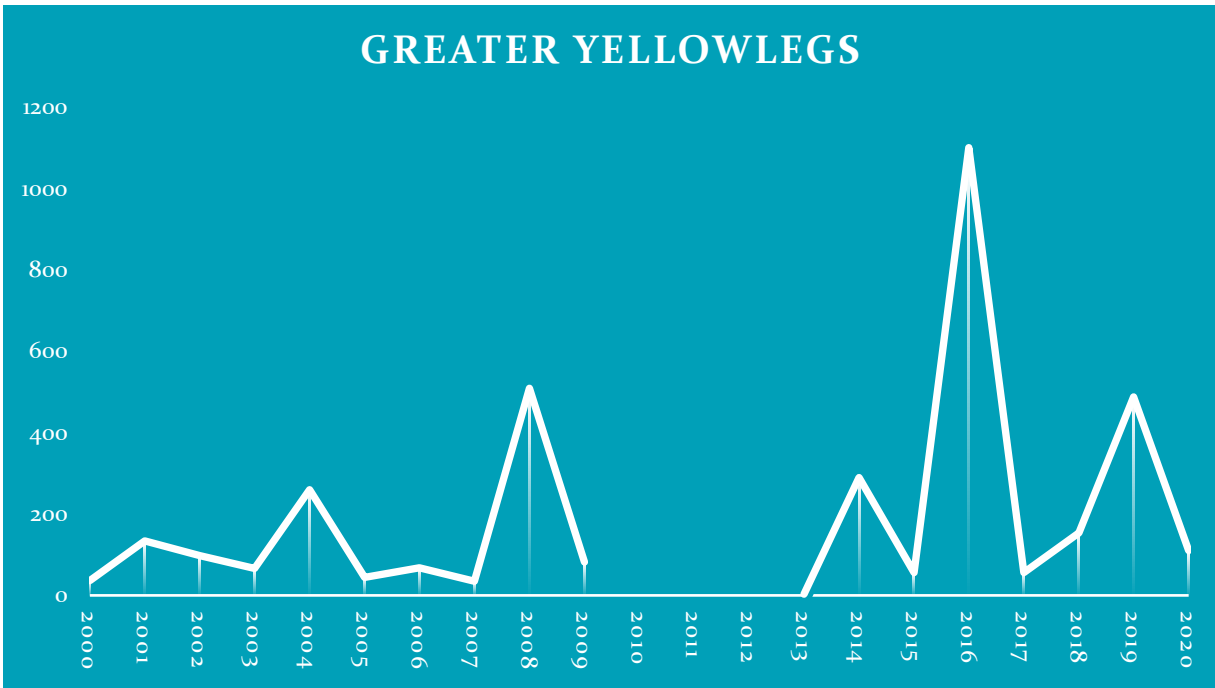
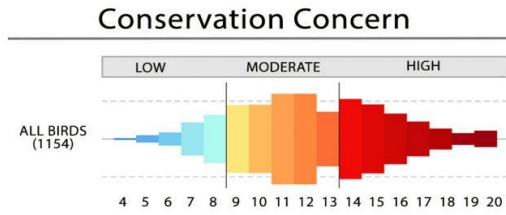
## Habitat:

The Greater Yellowlegs wades in water with an average depth of one to three inches but can be found in slightly deeper water where it picks up prey it sees or sweeps its bill side-to-side through water to catch any prey by feel. It can be found in areas with or without emergent vegetation and can occasionally be found foraging on the shorelines and in pastures. Its diet consists of small aquatic and terrestrial invertebrates, small fish, frogs, and occasionally seeds and berries.

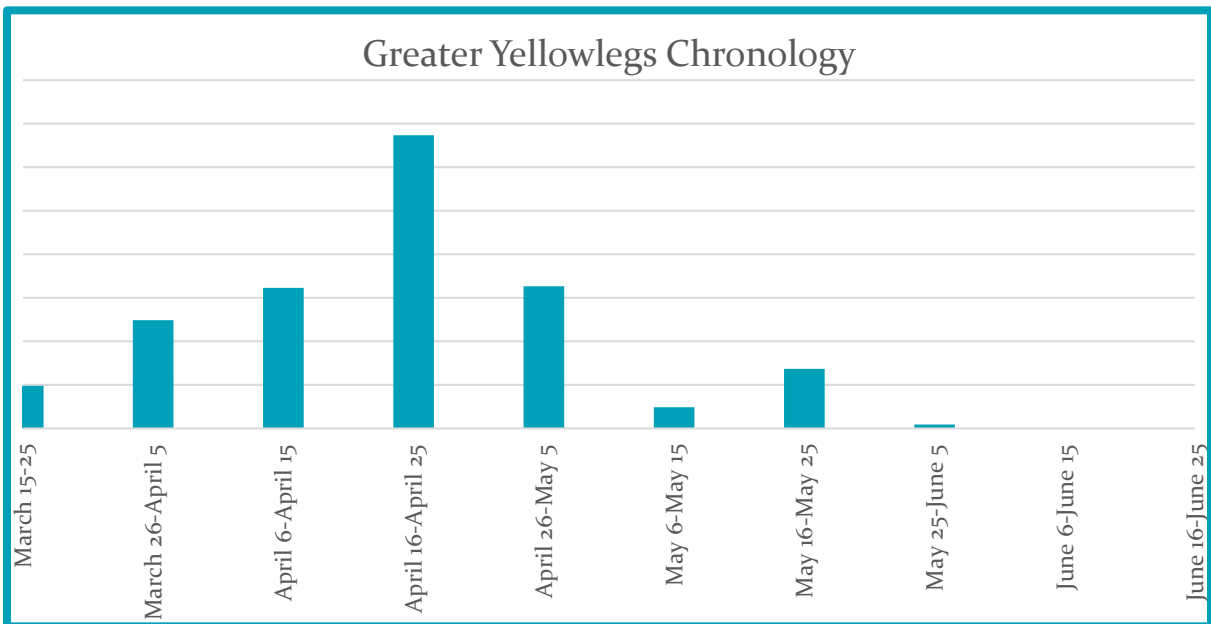
## Conservation Status:

The Greater Yellowlegs is a hardy and adaptable shorebird which has been showing up in recent years at Christmas Bird Counts with increasing frequency, especially well inland in the southern United States. This is a trend that may accelerate in the decades ahead. Climate models forecast areas with suitable climate to more than double in extent in winter, with the species wintering north well into the Midwest and Great Lakes region. However, in the summer season, trouble appears ahead, as only 19% of the current range is predicted to be climate suitable. As this will affect other boreal breeders, a key consideration for the future will be forest health—a matter of considerable concern. Greater Yellowlegs populations appear to have increased between 1966 and 2014, according to the North American Breeding Bird Survey.

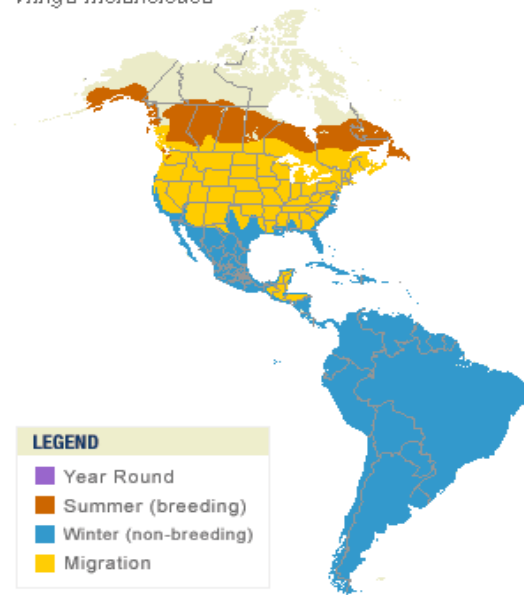
The Greater Yellowlegs has a Conservation Concern Ranking of 12.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Greater Yellowlegs  
*Tringa melanoleuca*



LEGEND	
■	Year Round
■	Summer (breeding)
■	Winter (non-breeding)
■	Migration

Map by Cornell Lab of Ornithology  
Range data by NatureServe



- Although the Greater Yellowlegs is common and widespread, its low densities and tendency to breed in inhospitable, mosquito-ridden areas make it one of the least-studied shorebirds on the continent.

# Willet

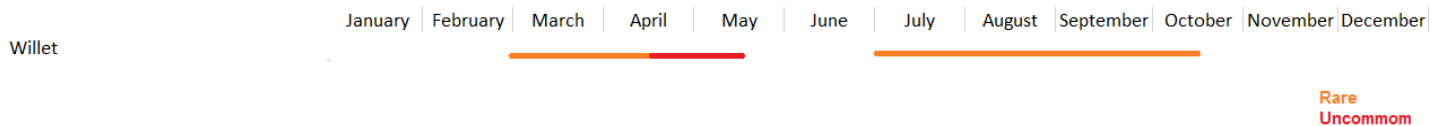
## *Tringa semipalmata*



The Willet, in its mottled brown breeding plumage, appears somewhat subdued; but its piercing calls and distinctive wing markings change this shorebird into one of our most conspicuous large shorebirds. It is a surprise to see this nondescript shorebird when in flight as it will reveal a very bold white and black pattern under each wing.

### Area Status:

The Willet is a rare to uncommon migrant and summer visitor. In some years, very few individuals are recorded, while in other years they can easily be found. Early spring migrants have been recorded in late February, but the peak of migration runs from mid-April into mid-May. The average first of the season observation date is around April 17<sup>th</sup>.



### High Count:

525 were recorded in April of 1990.

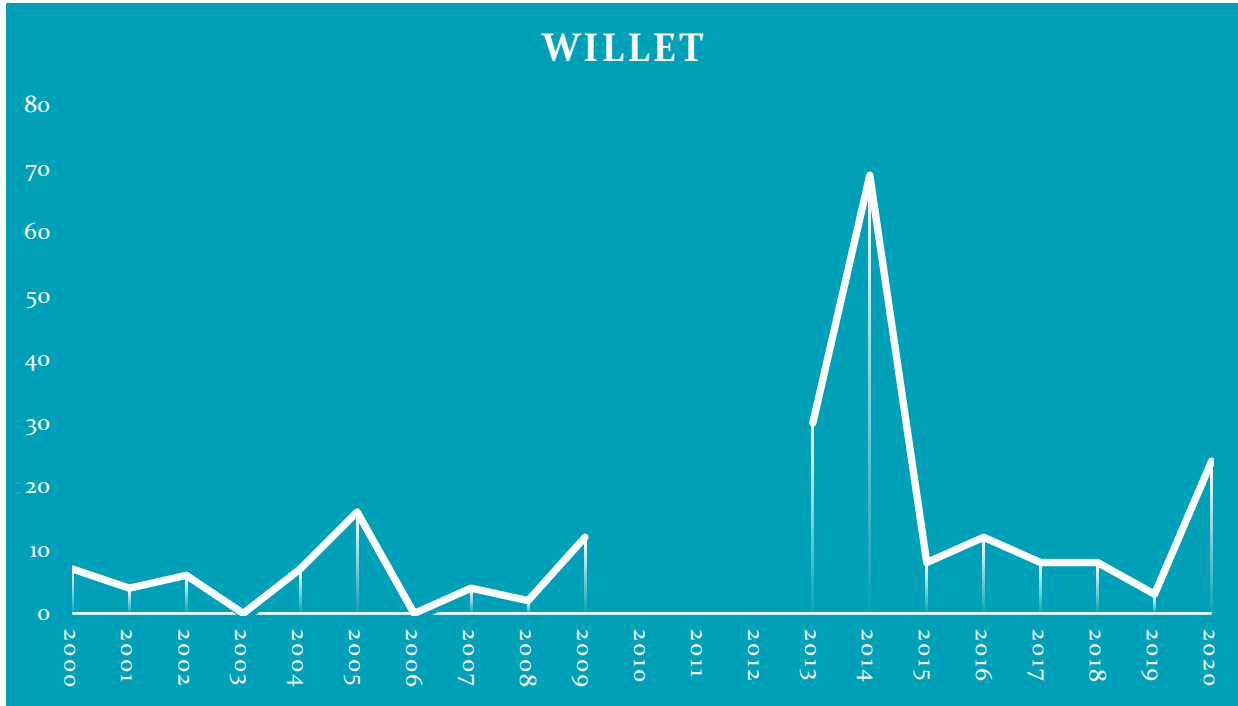
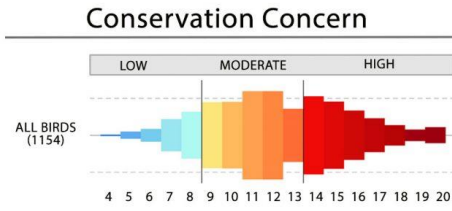
### Habitat:

The Willet prefers mudflats and shallow unvegetated areas, but at times it can be found in flooded grasslands. It feeds on a large variety of invertebrates but prefers large species such as crayfish and will also consume small fish, crustaceans and insects.

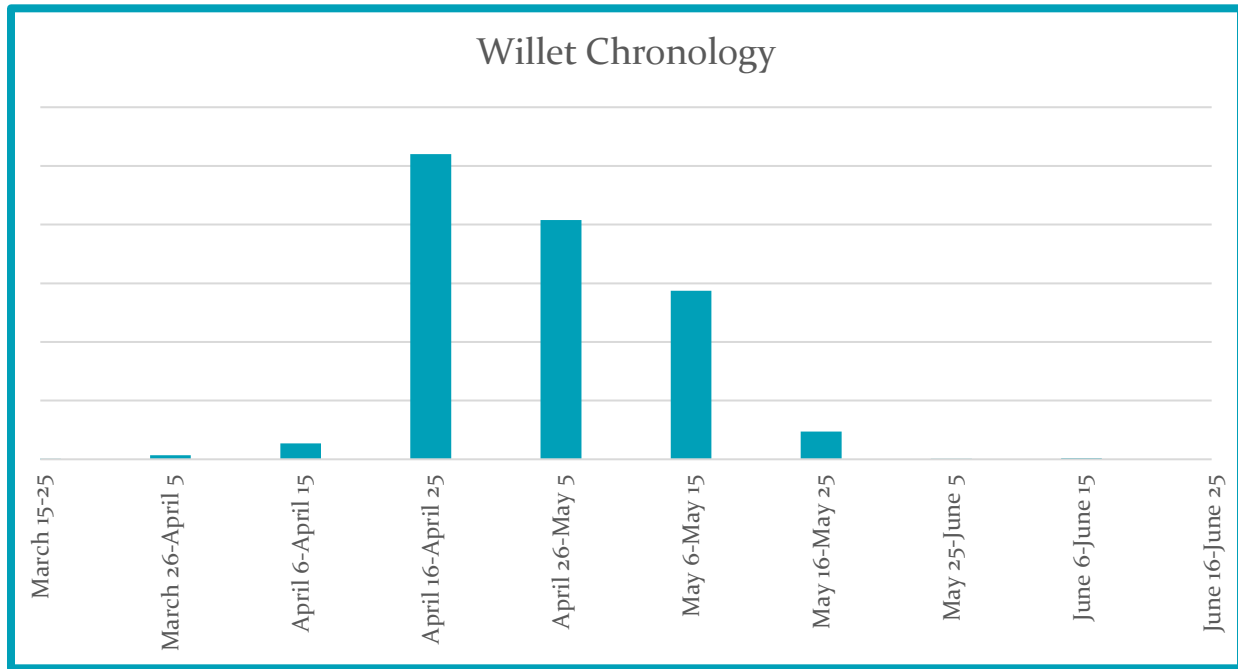
### Conservation Status:

Any effort to protect the Willet must first acknowledge that there are two highly distinct populations of this hefty sandpiper: inland breeders (called "Western Willets") that winter widely on ocean coasts; and coastal breeders (called "Eastern Willets") that winter largely south of the United States. The climate models forecast a 70 percent loss of current winter range by 2080 which refers mainly to the inland/western birds. The model shows potential expansion northward and inland, but areas of wintering habitat along the coasts are also threatened with sea level rise and development. Though Willets are common in some areas, they appear to have declined between 1966 and 2014, according to the North American Breeding Bird Survey. This species is on the State of the Birds Watch List, which lists bird species that are at risk of becoming threatened or endangered without conservation action. The conversion of native grasslands and wetlands to agricultural use has decreased the amount of suitable breeding territory for the western subspecies. Both adults and fledglings are also vulnerable to collisions with power lines built through wetland breeding sites. Willets were widely hunted for food in the nineteenth century; it took passage of the Migratory Bird Treaty Act in 1918 to begin the Willet's comeback to its present numbers.

The Willet has a Conservation Concern Ranking of 14.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012





Willet  
*Tringa semipalmata*



- Willets breeding in the interior of the West differ from the Atlantic Coastal form in ecology, shape, and subtly in calls. Western Willets breed in freshwater habitats and are slightly larger and paler gray. Eastern Willets have stouter bills and more barring on their chest and back. The difference in pitch between the calls of the two subspecies is very difficult for a person to detect, but the birds can hear the difference and respond more strongly to recorded calls of their own type.
- Although both parents incubate the eggs, only the male Willet spends the night on the nest.
- Willets and other shorebirds were once a popular food. In his famous *Birds of America* accounts, John James Audubon wrote that Willet eggs were tasty and the young “grow rapidly, become fat and juicy, and by the time they can fly, afford excellent food.” By the early 1900s, Willets had almost vanished north of Virginia. The Migratory Bird Treaty Act of 1918 banned market hunting and marked the start of the Willet’s comeback.
- Like Killdeer, Willets will pretend to be disabled by a broken wing to draw attention to themselves and lure predators away from their eggs or chicks.
- Because they find prey using the sensitive tips of their bills, and not just eyesight, Willets can feed both during the day and at night.

# Lesser Yellowlegs

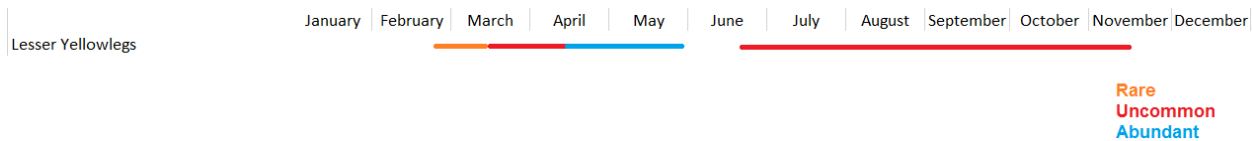
*Tringa flavipes*



The Lesser Yellowlegs gets its name from the fact that it is slightly smaller than the Greater Yellowlegs and because it has bright yellow legs. At first glance, the birds are very similar in appearance, but there are some slight differences that allow a person to separate the two species. Over the first twenty years of the International Shorebird Survey at Cheyenne Bottoms the Lesser Yellowlegs was more numerous than the Greater Yellowlegs, however, over the past ten years the numbers recorded are about equal, with a slight edge going to the Greater Yellowlegs.

## Area Status:

The Lesser Yellowlegs is an abundant spring migrant, with a few records of this species arriving at Cheyenne Bottoms in late February. However, the peak of migration runs from late March into early May. The average first of the season observation date is around March 25<sup>th</sup>. Fall migration runs from early June into mid-November.



## High Count:

21,023 were recorded in July of 1986.

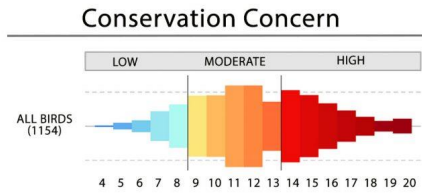
## Habitat:

The Lesser Yellowlegs feeds in water with an average depth of one to two and a half inches, but can sometimes be found in slightly deeper water where it picks up prey it sees or sweeps its bill side-to-side through the water to catch any prey by feel. It can be found in areas with or without emergent vegetation and can occasionally be found foraging on the shorelines and on wet mudflats. Its diet consists of small aquatic and terrestrial invertebrates along with small fish and small frogs.

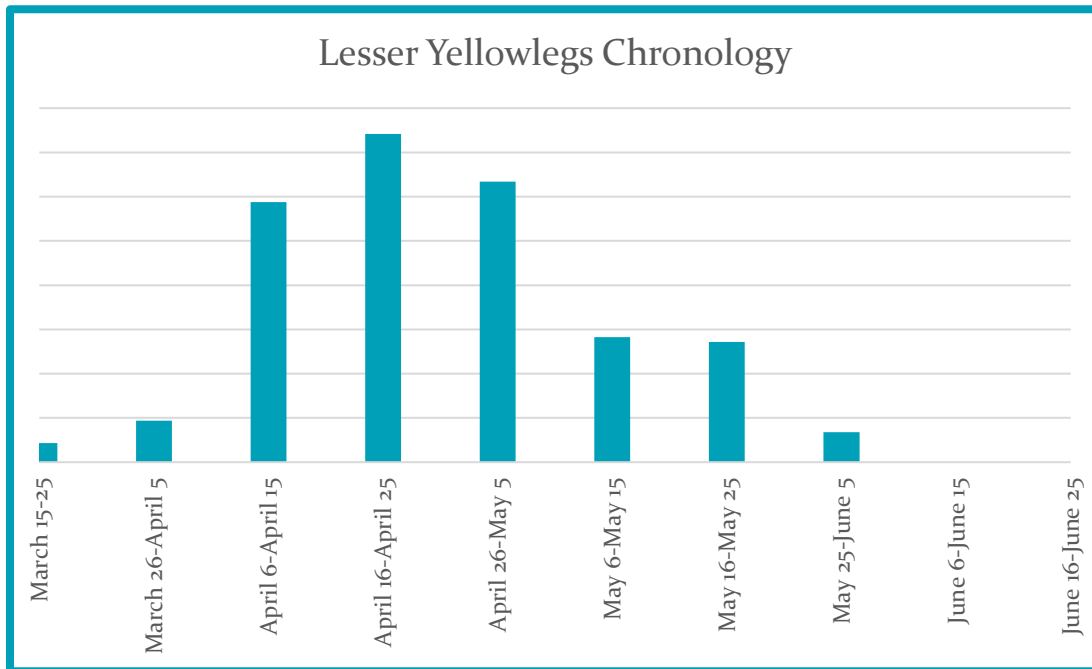
## Conservation Status:

This little cousin of the Greater Yellowlegs currently nests in and around tree line habitat and open boreal forests across Alaska and Canada. Climate models project an 83% loss of current summer range by 2080, with no potential for expansion and marked **movement** northward. If the species is going to thrive during the summer, the tree line will need to move northward as quickly as the forecast for suitable climate conditions. Suitable wintering areas are expected to expand northward and inland, although not as dramatically, as in the case of the similar Greater Yellowlegs.

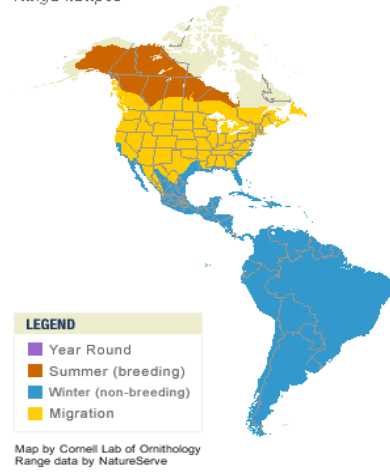
The Lesser Yellowlegs has a Conservation Concern Ranking of 13.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Lesser Yellowlegs  
*Tinga flavipes*



- Both the male and female Lesser Yellowlegs provide parental care to the young, but the female tends to leave the breeding area before the chicks can fly, thus leaving the male to defend the young until fledging.
- The oldest recorded Lesser Yellowlegs was at least 4 years, 11 months old when it was found in South Dakota in 1965. It had been banded in the Lesser Antilles in 1960.

# Upland Sandpiper

## *Bartramia longicauda*



The Upland Sandpiper is a shorebird of grasslands, not shorelines, this sandpiper inhabits native prairie and other open grassy areas in North America. Because of its habitat preference this species was rare during the first half of the International Shorebird Surveys, but numbers seem to be increasing and this could be a result of the shorebird habitat plan that was implemented on the Nature Conservancy's property.

### Area Status:

The Upland Sandpiper is a common migrant and summer resident. Early spring migrants have been recorded in March, but April is when most birds arrive at Cheyenne Bottoms. The average first of the season arrival date is around April 18<sup>th</sup>. A fair number spend the summer in the area, with most having left by late August. A few may still be present into late September.



### High Count:

82 were recorded in May of 1994.

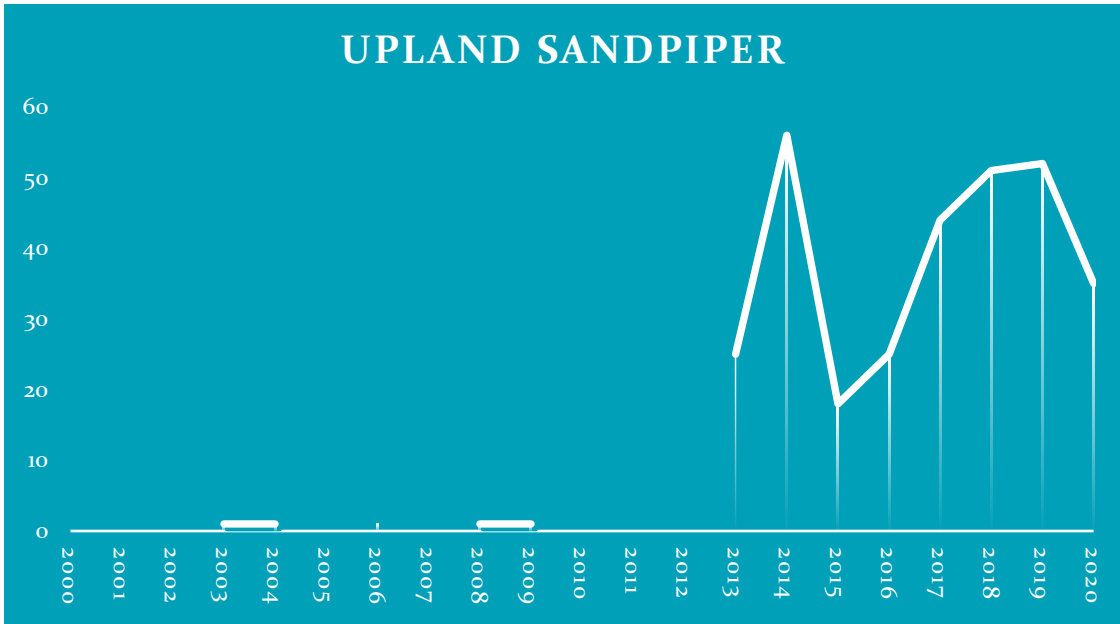
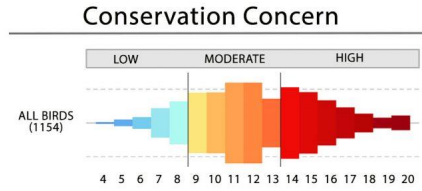
### Habitat:

The Upland Sandpiper is a grassland dependent shorebird that prefers native prairie; tallgrass prairie is the preferred habitat for both nesting and foraging, but it will also utilize shortgrass habitats such as hayfields, airports and some croplands. Since it is a shorebird of the grasslands, it is much more common in the grasslands surrounding the marshes of Cheyenne Bottoms rather than along the marsh edges.

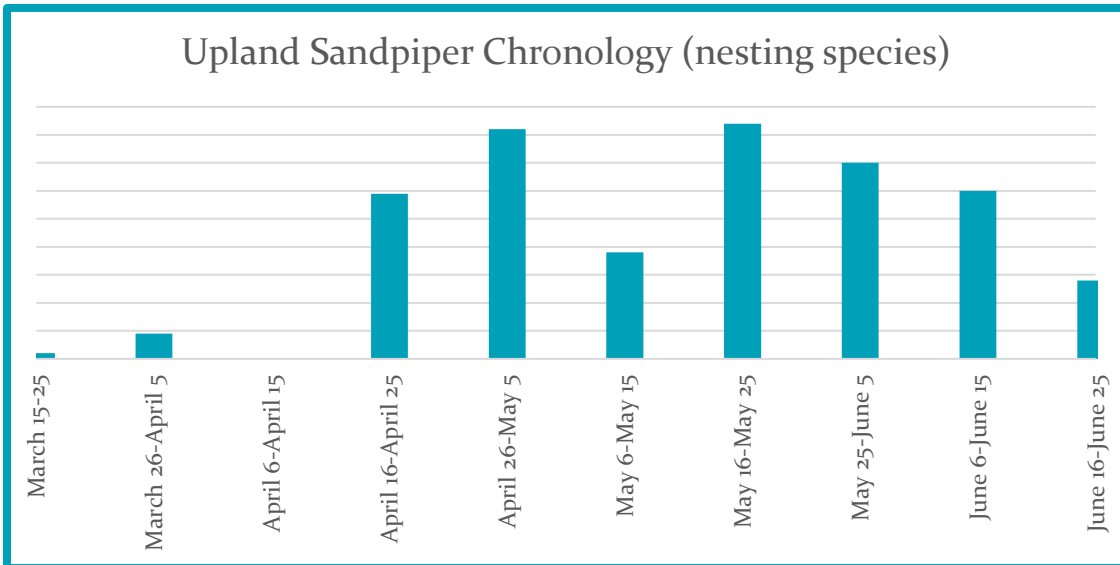
### Conservation Status:

The Upland Sandpiper was once very abundant and widespread within its range. Though less common, despite some significant decreases in some areas, there have been increases in other areas, and the population was stable between 1966 and 2014, according to the North American Breeding Bird Survey. A 2012 assessment predicts that the current North American population is about 750,000. The Upland Sandpiper was once prized as a delicacy, both for its flesh and its eggs; hunting continued until well after the passage of the Migratory Bird Treaty in 1918. Hunting in the West Indies remains a conservation concern. Conversion of native grasslands to croplands in both North and South America has also caused populations to fall.

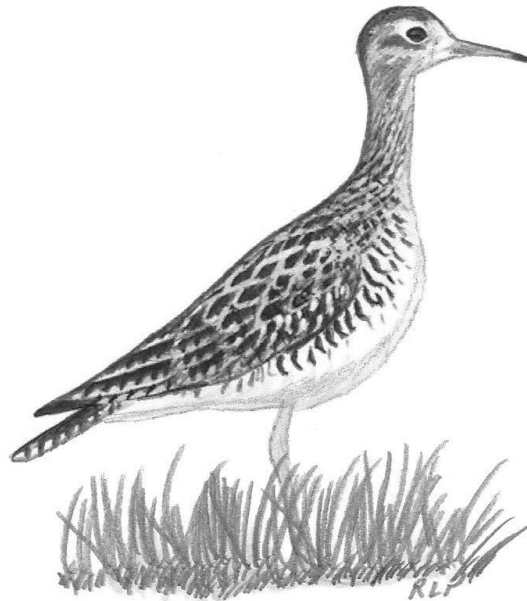
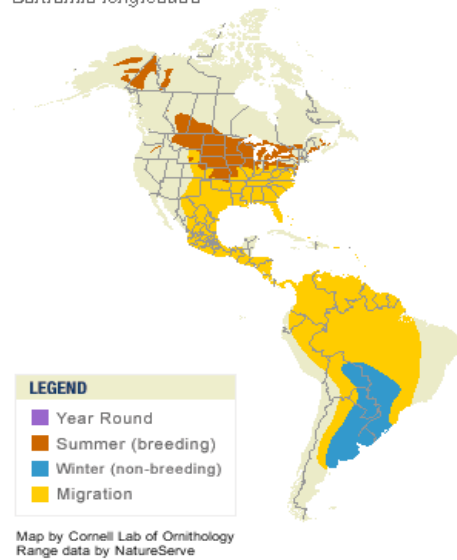
The Upland Sandpiper has a Conservation Concern Ranking of 10.



The International Shorebird Survey was not conducted in 2010, 2011 and 2012



Upland Sandpiper  
*Bartramia longicauda*



- The Upland Sandpiper begins southward migration unusually early, beginning in mid-July. It spends up to eight months of the year in its winter home in South America, during the austral summer.
- Upland Sandpiper pairs scrape out multiple depressions in the ground but use only one for their actual nest.
- Researchers banded an Upland Sandpiper on the Konza Prairie Biological Station, a field research station in the Flint Hills of Kansas. Like many banded birds, the bird then disappeared from human notice. A photographer documented it, alive and well, perched on a fence post in the Flint Hills – about a mile from where it was banded in 2006 as a chick on the nest. This Upland Sandpiper was 13 years old and was the oldest of its species on record

# Whimbrel

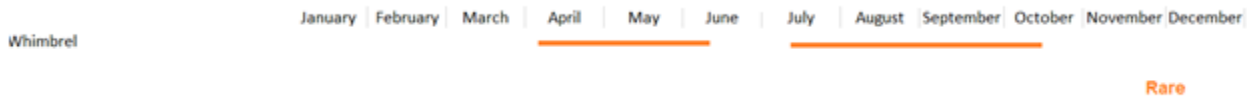
## *Numenius phaeopus*



The Whimbrel is considered a very rare migrant and is one of our larger shorebirds with a length of almost 18 inches. These two facts make it one of the more exciting of finds; if I am lucky enough to spot one. Thinking back over the past twenty years I think I have spotted more of these birds in the wet meadows of the Cheyenne Bottoms Preserve than I have seen along the shorelines of the wildlife area.

### Area Status:

A very rare migrant, with spring migration running from early April to early June. The average first of the season observation date is around April 19<sup>th</sup>. The spring migration period appears to be fairly constricted with 90% of the birds arriving between May 6<sup>th</sup> and May 25<sup>th</sup>. Fall migrants can begin arriving in early July with most of the birds gone from the area by mid-October.



### High Count:

57 were recorded in May of 2008.

### Habitat:

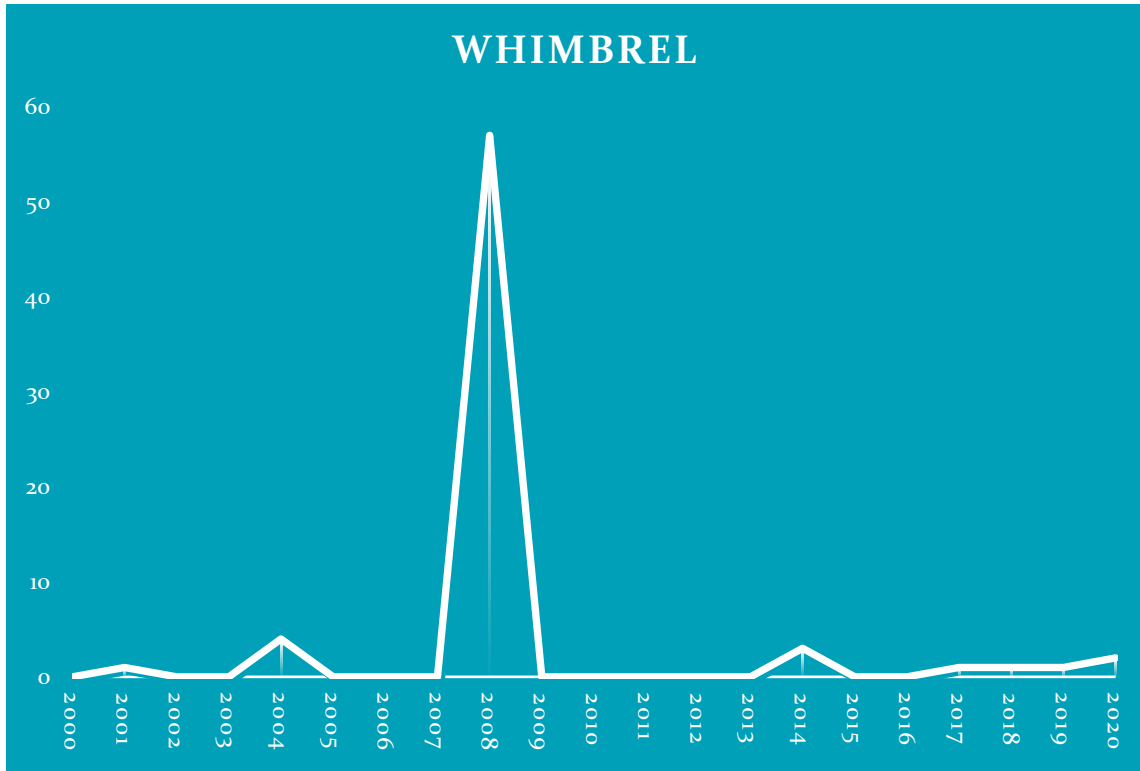
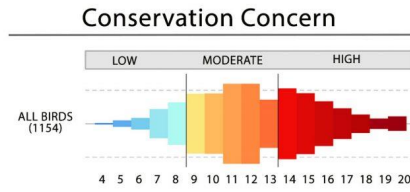
The Whimbrel can be found using exposed mudflats where the soft substrate allows for probing for large burrowing invertebrates. It can also be found sometimes in water up to about 8 inches in depth. However, I have observed more individual birds using the wet meadow grasslands than what is recorded by the International Shorebird Survey, a survey route that covers mainly shoreline habitat.

### Conservation:

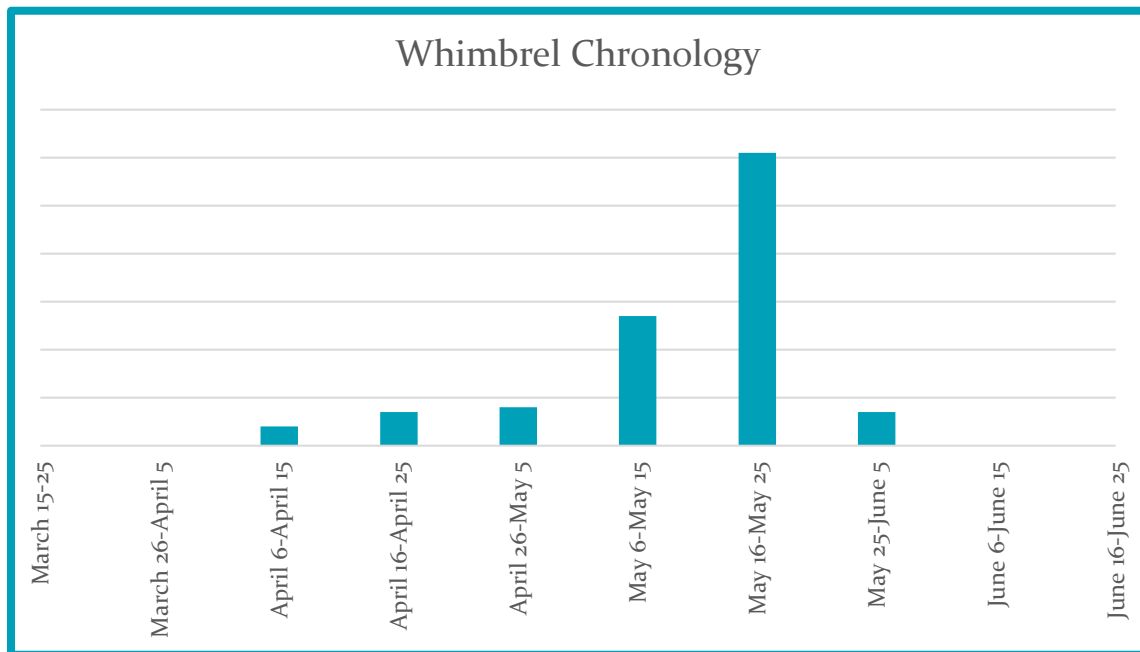
This powerful flier and accomplished migrant occur in open habitats, usually near coasts. As an arctic breeder, most of this species' summer distribution is remote. As such, climate models currently lack enough data to make a forecast for the summer. On the wintering grounds, the model projects a 78% loss of current range by 2080. There is some expansion potential, but only if changing hydrological and land-use patterns parallel the changing climate.



The Whimbrel has a Conservation Concern Ranking of 12.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Whimbrel  
*Numenius phaeopus*



- Some migrating Whimbrels make a nonstop flight of 2,500 miles from southern Canada to South America.
- In many regions, the primary winter food of the Whimbrel is crab. The curve of the Whimbrel's bill nicely matches the shape of fiddler crab burrows. The bird reaches into the crab's burrow, extracts the crab, washes it if it is muddy, and sometimes breaks off the claws and legs before swallowing it. Indigestible parts are excreted in fecal pellets.
- The oldest recorded Whimbrel was at least 14 years old when it was recaptured and re-released in Manitoba.

# Long-billed Curlew

*Numenius americanus*



Our largest shorebird is truly a special treat to see at Cheyenne Bottoms. It is a boom or bust bird, with most years having no birds recorded, whereas in other years a couple of dozen are observed. For me, they are a rare find. I can still remember the exact locations of the handful of birds I have seen.

### Area Status:

A very rare migrant, with spring migration running from late March into late May, with most sightings during the month of April. The average first of the season observation is around April 13<sup>th</sup>.



### High Count:

54 were recorded in May of 2004.

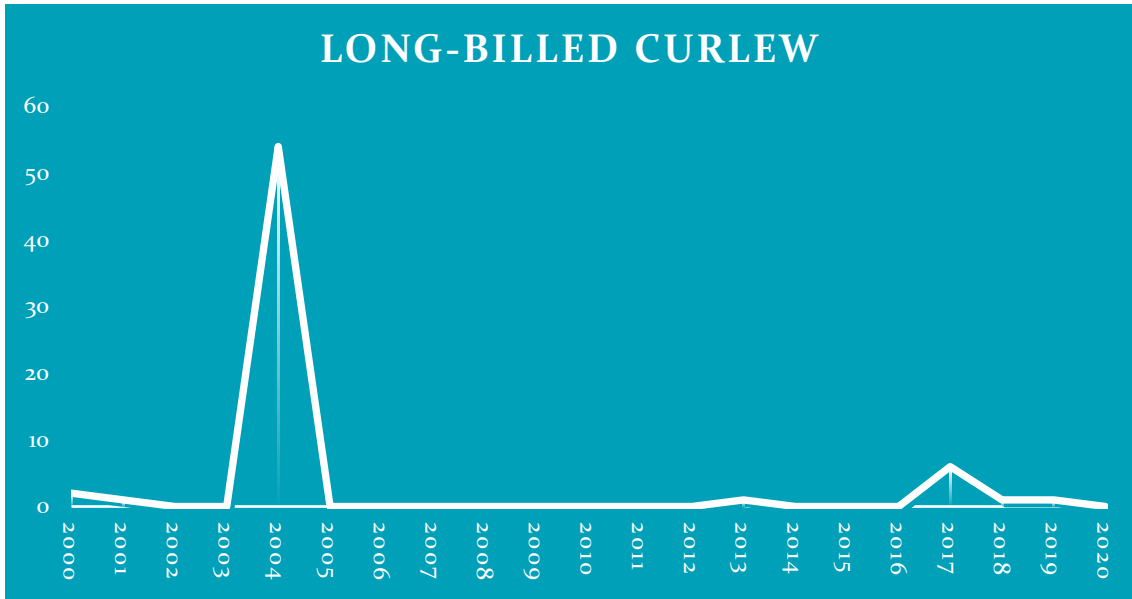
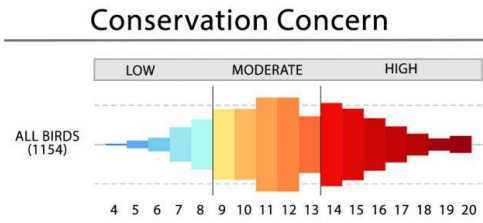
### Habitat:

This is a shorebird that prefers shortgrass prairie habitats and pastures with vegetation short enough for the birds to observe their surrounding for some distance. They will also utilize mudflats with soft substrates suitable for probing.

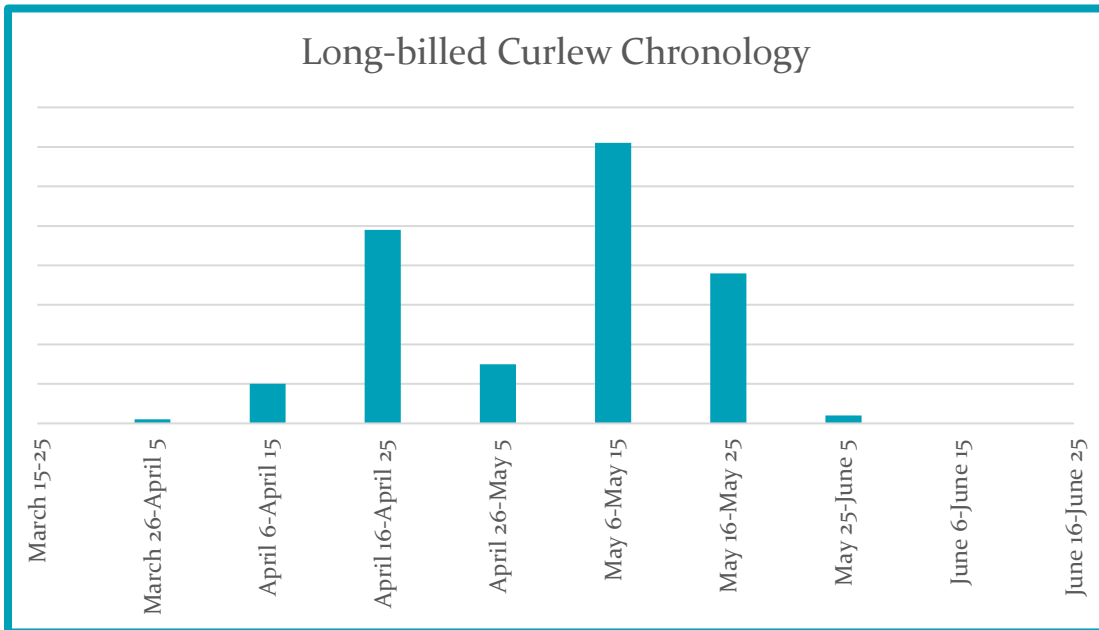
### Conservation Status:

The Long-billed Curlew's nesting habitats have been under siege for decades by direct human agency: grazing, fire suppression, and infrastructure development. Unfortunately, climate change may lead to additional declines, as climate models project a 99% loss of current summer range by 2080. On the wintering grounds, expansion and gain is possible, but disruptions are expected as areas with suitable climate move inward and northward.

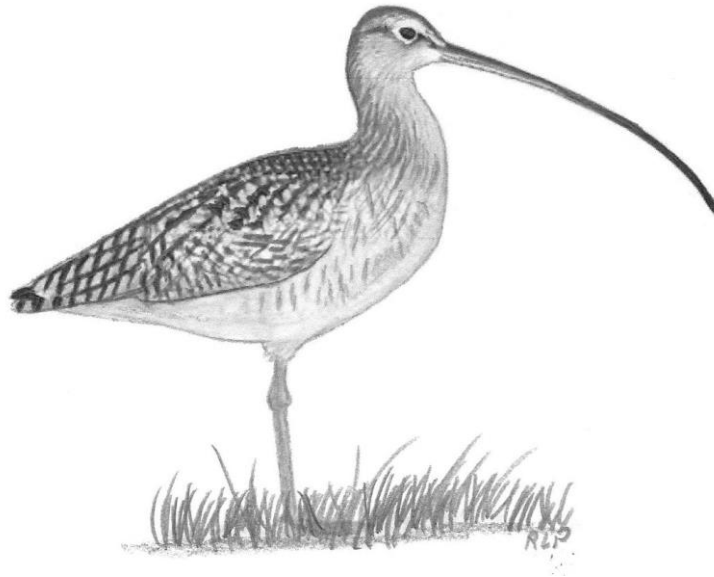
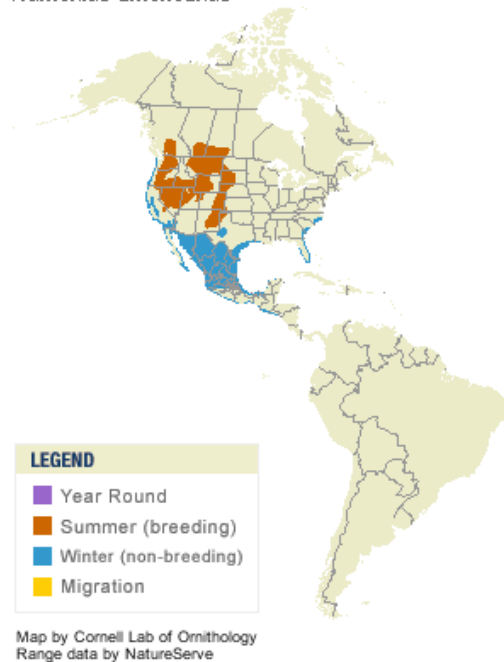
The Long-billed Curlew has a Conservation Concern Ranking of 14.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



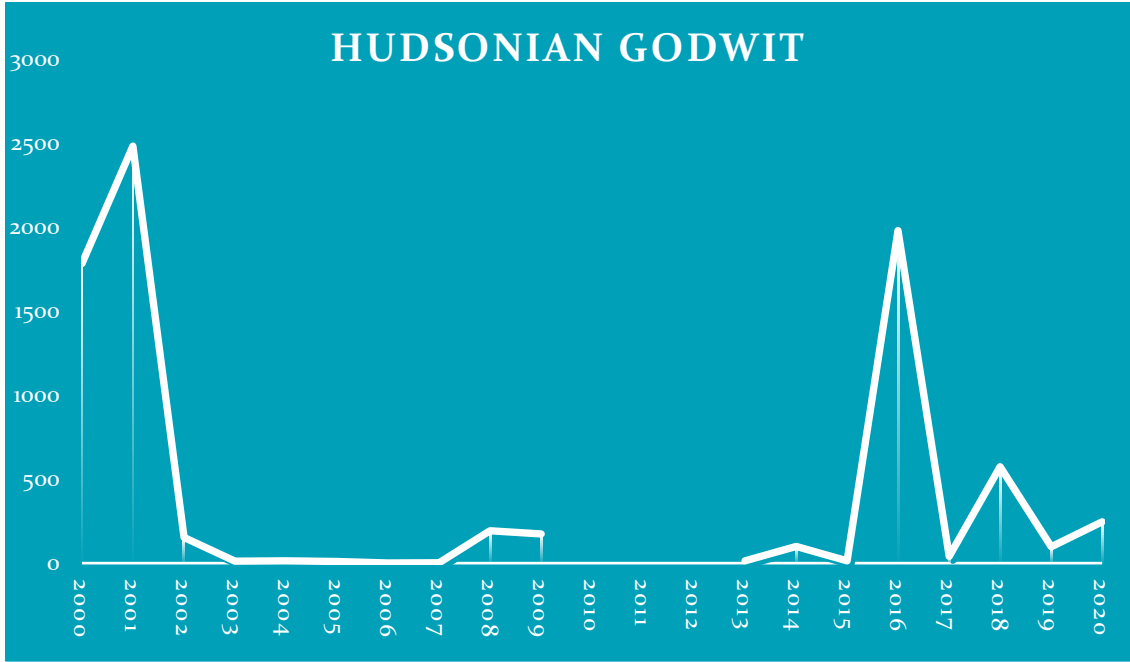
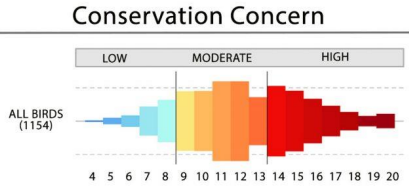
Long-billed Curlew  
*Numenius americanus*



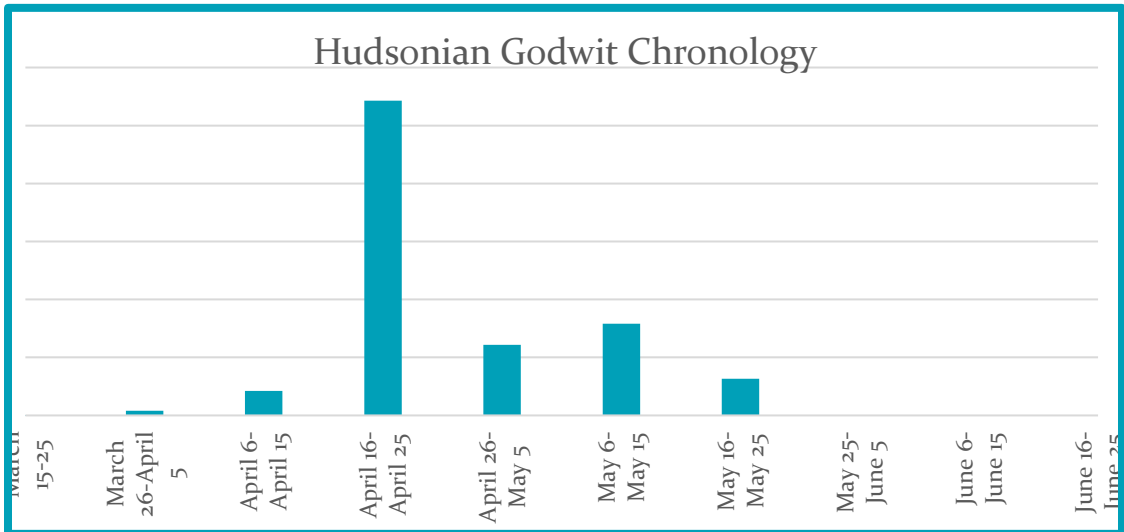
- Both the male and female Long-billed Curlew incubate the eggs, and both are aggressive in defense of nests and young. The female typically abandons the brood two to three weeks after hatching and leaves brood care to her mate. Despite this abandonment the same male and female often pair with each other again the next year.
- Although the Long-billed Curlew's diet includes many species of invertebrates and some vertebrates, its bill is best adapted for capturing shrimp and crabs living in deep burrows on tidal mudflats (its wintering grounds) or burrowing earthworms in pastures.
- The female Long-billed Curlew's bill is longer than the male's and is a different shape. Hers is flatter on top with a more pronounced curve at the tip. His is gently curved throughout its length. The juvenile's bill is distinctly shorter than the adults' during its first few months, but it may be equal to the male's length some time in its first year.



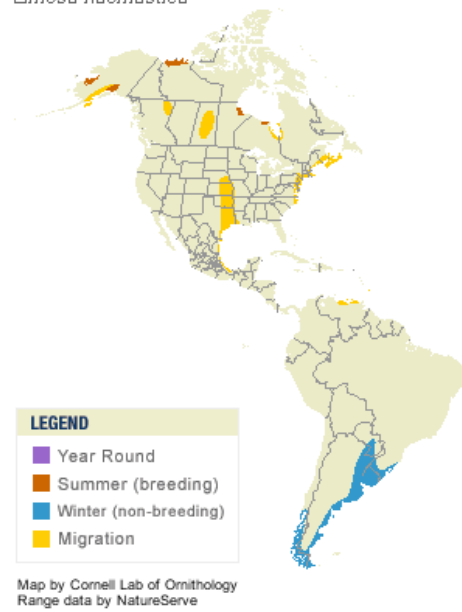
The Hudsonian Godwit has a Conservation Concern Ranking of 14.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Hudsonian Godwit  
*Limosa haemastica*



- After breeding, the Hudsonian Godwit undertakes a migration from the subarctic to southern South America, in which it apparently makes nonstop flights of several thousand miles.
- Newly hatched Hudsonian Godwit chicks can swim across pools and slow-flowing streams. Adults can swim also.
- The oldest recorded Hudsonian Godwit was a male, and at least 6 years, 1 month old when he was shot in Ontario in 2013. He had been banded in Manitoba in 2008.



# Marbled Godwit

*Limosa fedoa*



The Marbled Godwit is not as common as its close relative, the Hudsonian Godwit. Over the course of the International Shorebird Survey at Cheyenne Bottoms, the Hudsonian has outnumbered the Marbled seven to one.

### Area Status:

The Marbled Godwit is a somewhat rare spring migrant, with spring migration running from early April into late May. However, the peak of migration is from mid-April to early May. The average first of the season observation date is around April 14<sup>th</sup>.



### High Count:

1,276 were recorded in April of 1991.

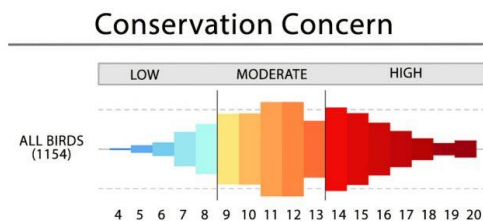
### Habitat:

The Marbled Godwit feeds in open shallow water, while the wet mud and water interface is preferred habitat. It will also use mudflats and shallow marshes with a preferred foraging depth of one inch to up to eight inches. While it is usually found in open water, it also can be observed in wet pastures and fields.

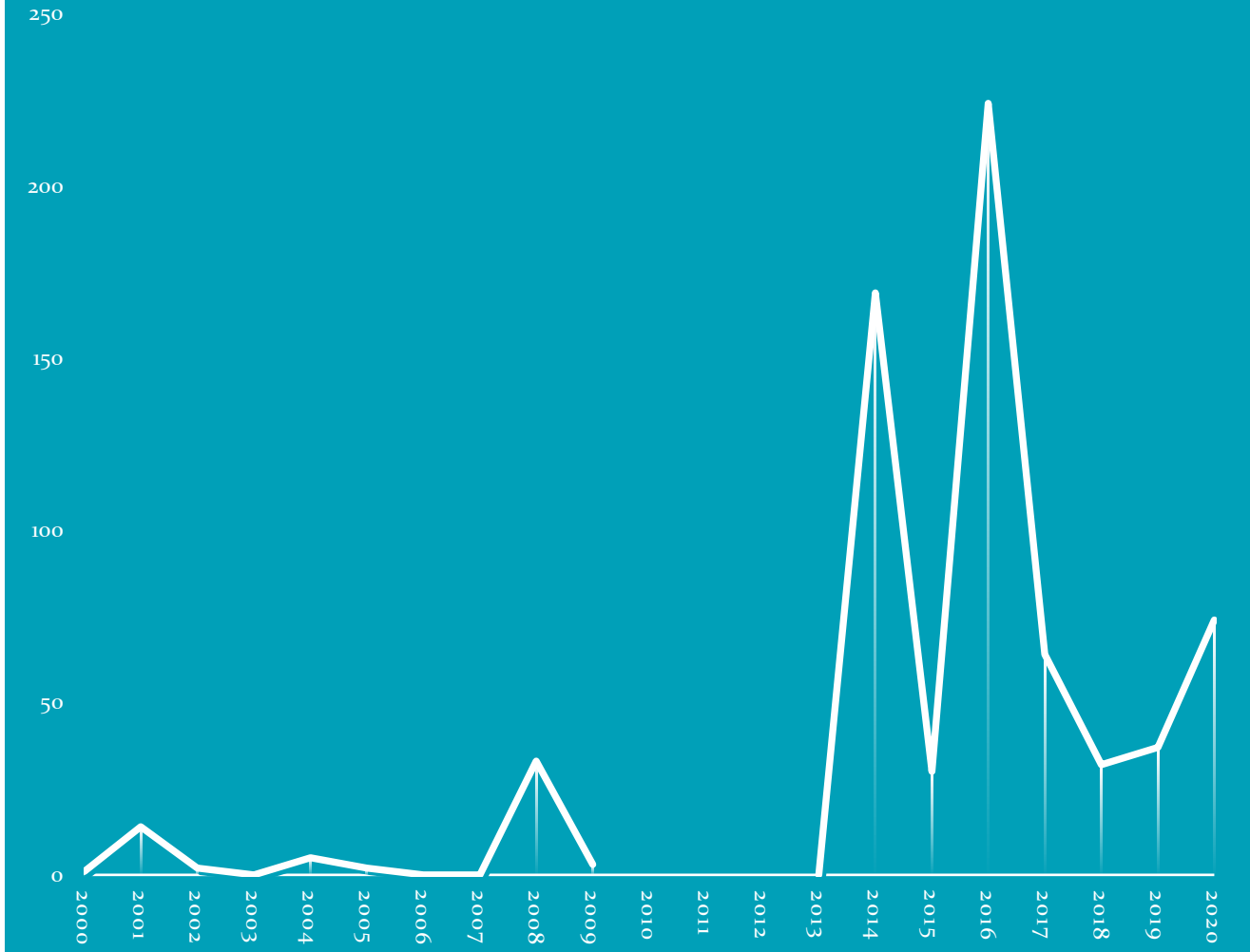
### Conservation Status:

The Marbled Godwit is an inhabitant of open sites in the middle of the continent, favoring wet habitats. Current climate models predict a 100% loss of current summer range by 2080. The wintering grounds may expand considerably, with southern Arizona and inland California opening to non-breeding Marbled Godwits, if water resources are available.

The Marbled Godwit has a Conservation Concern Ranking of 15.

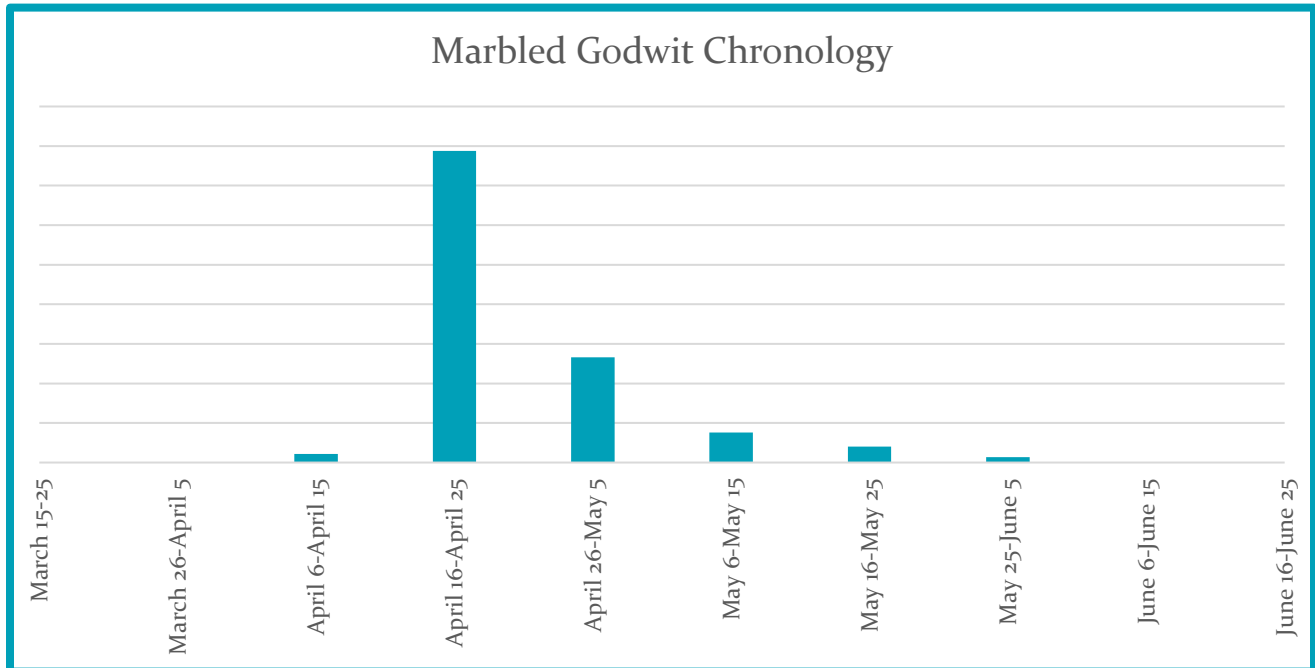


# MARBLED GODWIT

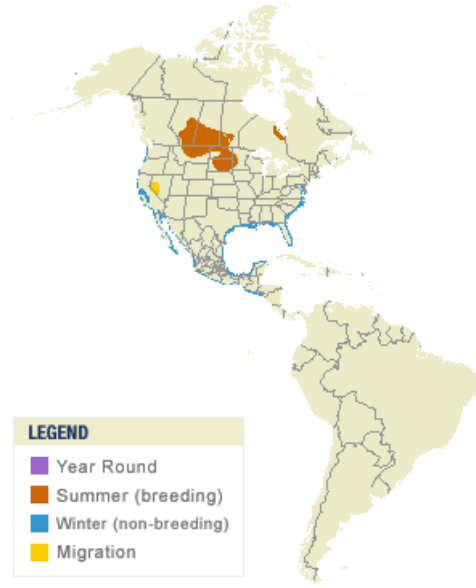


The International Shorebird Survey was not conducted in 2010, 2011, and 2012

## Marbled Godwit Chronology



Marbled Godwit  
*Limosa fedoa*



- Nests of the Marbled Godwit are not easily found, as these birds do not readily flush from their eggs. Incubating adults can sometimes be picked up from the nest.
- The Marbled Godwit was long regarded as showing no noticeable geographic variation until measurements of birds breeding in Alaska showed these populations to have shorter wings and legs than Great Plains godwits.
- The oldest known Marbled Godwit was at least 13 years, 4 months old when it was found in California, the same state where it had been banded.

# Ruddy Turnstone

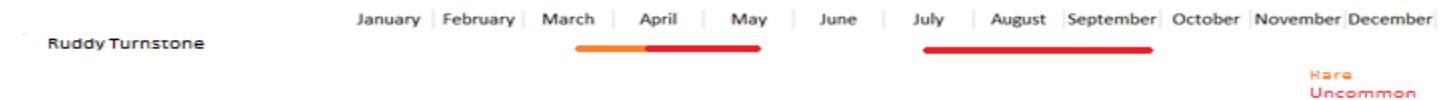
## *Arenaria interpres*



The Ruddy Turnstone, in my opinion, is one of the showiest of shorebirds. It is common along the coasts, but generally rare at inland sites like Cheyenne Bottoms, where it is a late migrating shorebird with the majority passing through in May. It is a joy to watch this bird flipping over small stones and other material to find the prey underneath.

### Area Status:

An uncommon migrant with a migration period that runs from early April into early June. However, the peak of migration is usually during the month of May. Not a species that can be seen every year and over the course of the International Shorebird Survey less than 150 have been recorded.



### High Count:

26 were recorded in May of 2003.

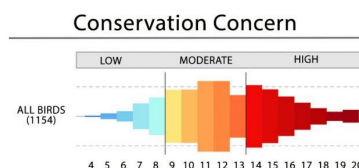
### Habitat:

The Ruddy Turnstone prefers to feed in vegetation-free areas along the shorelines of lakes and marshes. It seeks mudflats that contain small rocks and other debris where they can forage by flipping over the small pieces of debris, thus exposing small invertebrates.

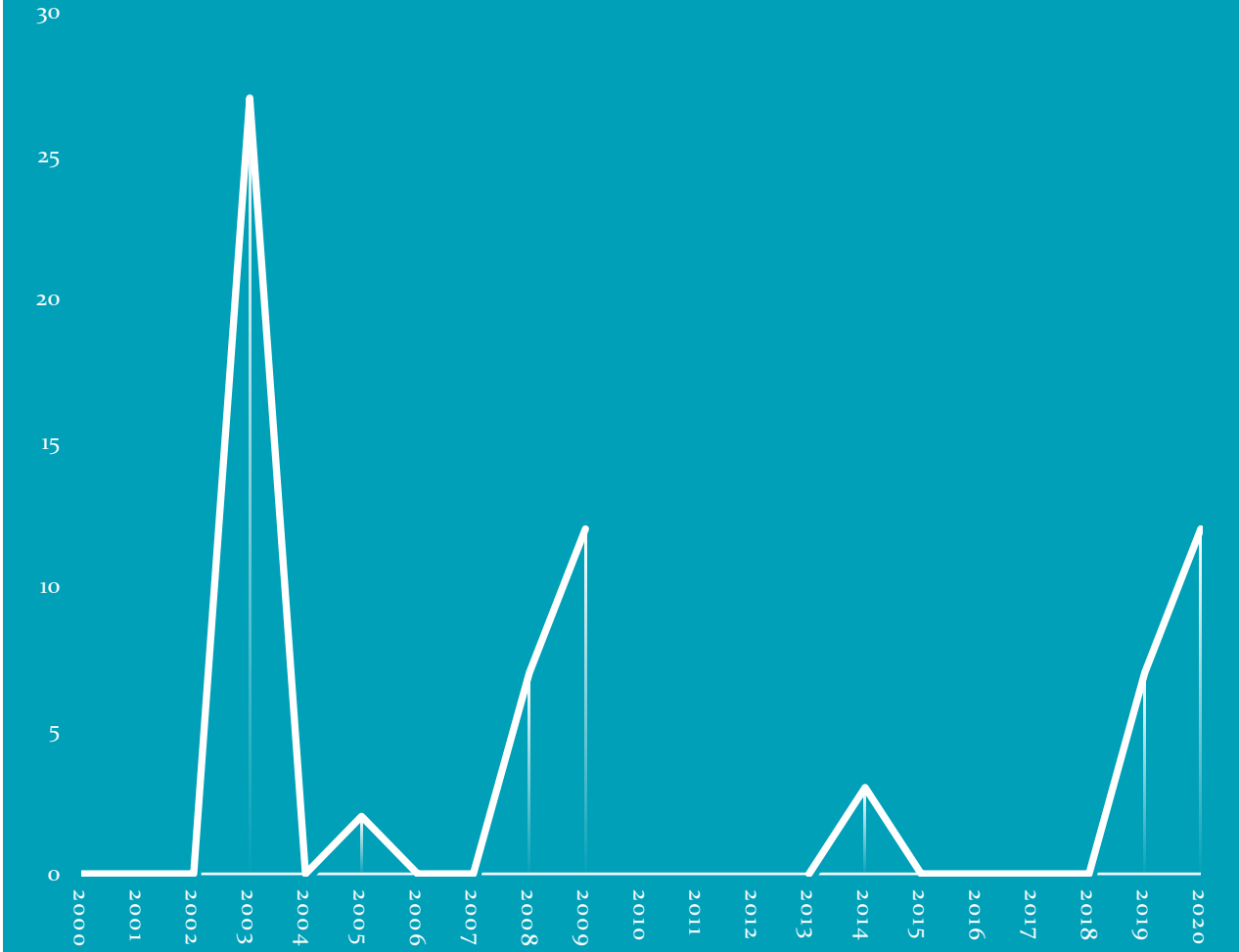
### Conservation Status:

The Ruddy Turnstone is known to most birders as a winter visitor along rocky beaches and breakwaters on both coasts. Climate models forecast a rapid decline in suitable climate on the wintering grounds, especially along the Gulf Coast. Projected incursions inland of suitable climate may not be matched by the expansion of favored habitat, with one exception—the Great Lakes. Breakwater construction in recent years has proliferated in this region, and Ruddy Turnstones may be able to colonize this surrogate for naturally occurring rocky intertidal habitats—if they stop far north of their usual wintering grounds during migration. The model does not look at possible changes on the species' Arctic breeding grounds.

The Ruddy Turnstone has a Conservation Concern Ranking of 11.

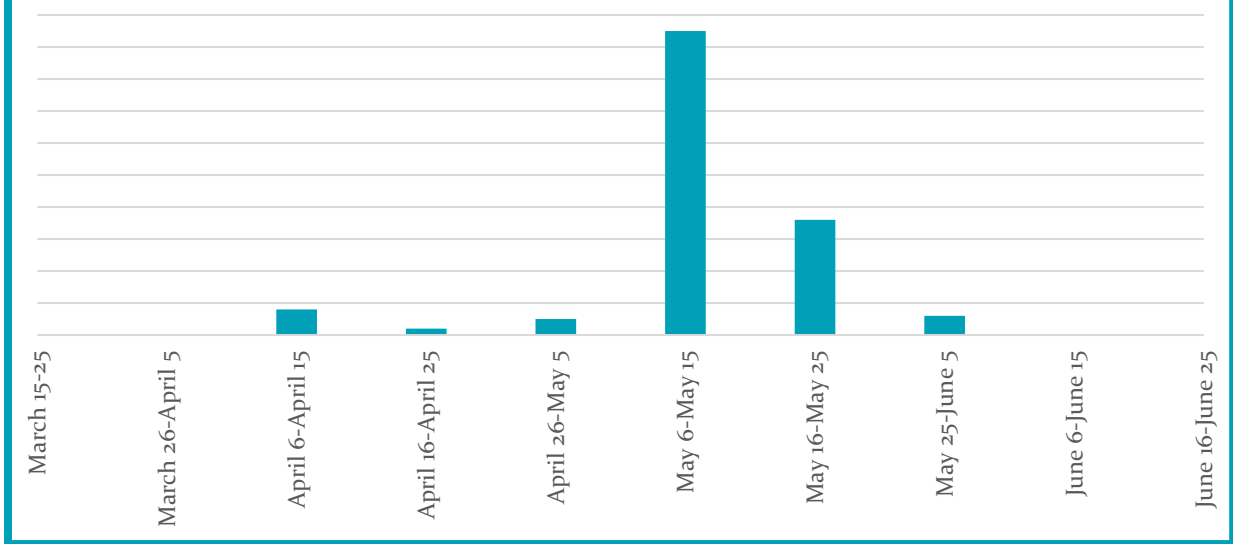


# RUDDY TURNSTONE

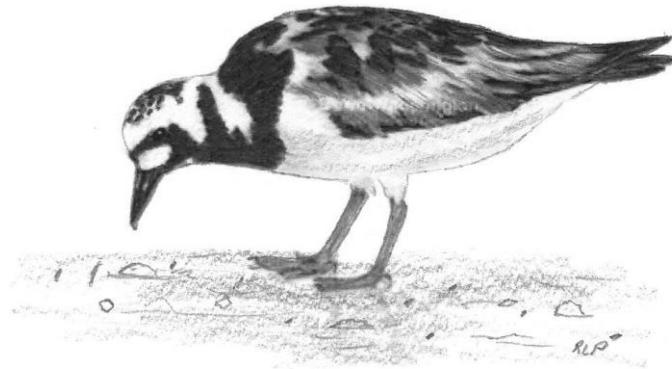


The International Shorebird Survey was not conducted in 2010, 2011, and 2012

## Ruddy Turnstone Chronology



Ruddy Turnstone  
*Arenaria interpres*



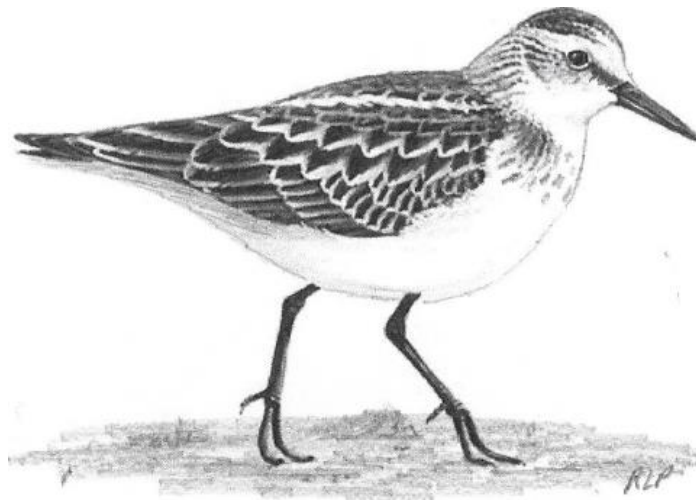
- The male Ruddy Turnstone makes nest-like scrapes in the ground within his territory, often close to the final site selected by the female. The male's scrapes are made before the female starts to lay eggs and are part of the courtship and nest site selection process. No eggs are laid in the scrapes the male makes.
- As their name suggests, turnstones often forage by turning over stones and other objects.
- The oldest recorded Ruddy Turnstone was a female, and at least 14 years, 11 months old, when she was recaptured and rereleased during a scientific study in New Jersey.

## Little Stint *Calidris minuta*



The Little Stint is a rare visitor from Eurasia. It has been recorded annually along the western coast of Alaska and along the Pacific coast with scattered reports elsewhere in North America. There are only a couple of records for Kansas; those being from Quivira NWR and here at Cheyenne Bottoms. It was by pure luck I spotted the one bird that has been recorded here at Cheyenne Bottoms. I was driving along the preserve road and stopped to look at some shorebirds that were right next to the road when I noticed one bird that looked just a little different. I took a photo with my cell phone and although it came out dark and blurry because it was a cloudy, rainy day, the photo was good enough to see the identifying characteristics that made identification possible.

This bird was found in the fall of 2018, on an open mudflat with a mix of Least and Semipalmated Sandpipers which look very similar. Again, it was just pure luck that I even noticed this bird.



# Red Knot

*Calidris canutus*



The Red Knot is a global species; and there are three subspecies in North America, and they all appear to be in decline. The populations wintering in South America dropped over 50% from the mid-1980s to 2003 and are listed as a federally threatened species in the United States. Although never a common shorebird at Cheyenne Bottoms, the numbers recorded during the shorebird survey dropped to zero in the early 90's with a just few recorded since. The North American Red Knot is on the **2016 State of the Birds Watch List**, which lists bird species that are at risk of becoming threatened or endangered without conservation action. The occurrence of large concentrations of knots at traditional staging areas during migration makes them vulnerable to pollution and loss of key resources.

Area Status:

A very rare migrant, less than 100 have been recorded during the International Shorebird Surveys. Ninety-seven percent of all records come from the period of 1980 to 1991. Migration period runs from late March through late May with most birds seen during the month of May.

High Count:

21 were recorded in May of 1984.

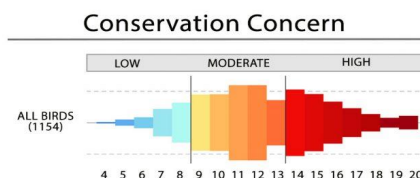
Habitat:

At Cheyenne Bottoms, it prefers to feed on vegetation-free mud flats.

Conservation Status:

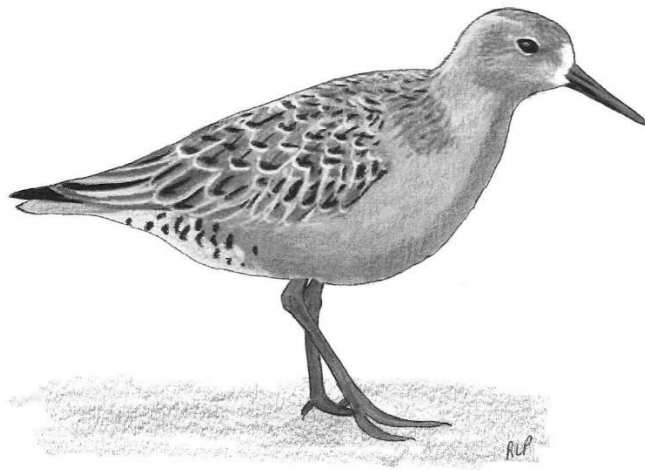
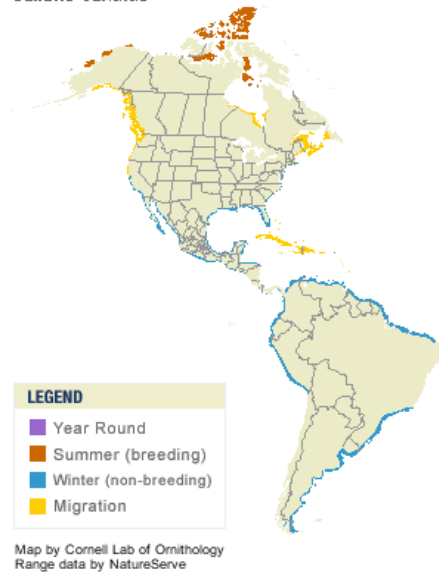
This is the poster child of shorebird conservation due to recent Red Knot population declines, which have garnered much attention. A key concern has to do with what's happening on spring migration: migrating Red Knots stage in huge numbers along the Mid-Atlantic coast where they feast on horseshoe crab eggs, a food resource that has been severely depleted by overharvest. Climate models bring attention to a new threat, loss of wintering range. The model projects a shift away from over three-quarters of wintering areas with suitable climate in the United States and Canada, with particularly sharp losses in Florida. Most Red Knots winter along or near the shore, so rising sea levels will play a key role in determining the Red Knot's future whereabouts in winter.

The Red Knot has a Conservation Concern Ranking of 17.





Red Knot  
*Calidris canutus*



- The Red Knot does not regurgitate undigested hard parts of prey, as do many species of birds. Instead it excretes the hard parts in the feces. Researchers have used fecal content to examine food consumption rates.
- Red Knots concentrate in substantial numbers at traditional staging grounds during migration. Delaware Bay is an important staging area during spring migration, where the knots feed on the eggs of spawning horseshoe crabs. It is estimated that nearly 90 percent of the entire population of the Red Knot subspecies *C. c. rufa* can be present on the bay in a single day. The reduction in food available to the knots because of the heavy harvesting of horseshoe crabs may be responsible for a decline in Red Knot populations.
- The oldest recorded Red Knot was at least 15 years, 11 months old. It was banded in 1986 in New Jersey and recaptured and rereleased during banding operations in Delaware in 2001.

# Sanderling

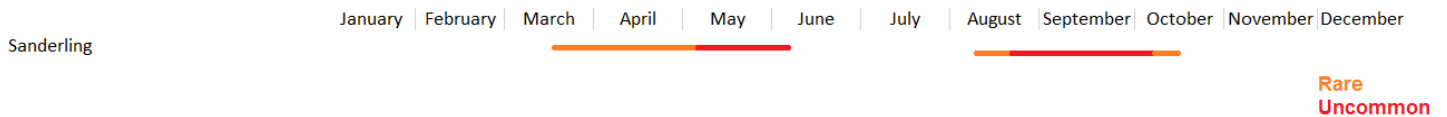
## *Calidris alba*



The Sanderling is one species of shorebird that I just don't have that much experience with. I can go years without recording a single bird and then one year, there can be dozens. This species is not that common at Cheyenne Bottoms, only a little over one hundred have been recorded during a good year by the International Shorebird Survey.

### Area Status:

The Sanderling is an uncommon migrant, with spring migration running from late March into the first of June. The average first of the season observation date is around April 21<sup>st</sup>, with the peak of migration during the month of May.



### High Count:

222 were recorded in May of 2015.

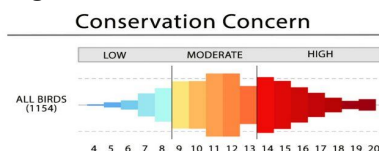
### Habitat:

At Cheyenne Bottoms the Sanderling seems to prefer vegetation-free mudflats. However, while migrating along the North American coast, Sanderlings stop on hard-packed sand beaches, tidal mudflats, rocky coastlines, and inland bodies of water—including ponds, streams, reservoirs, and shallow prairie lakes.

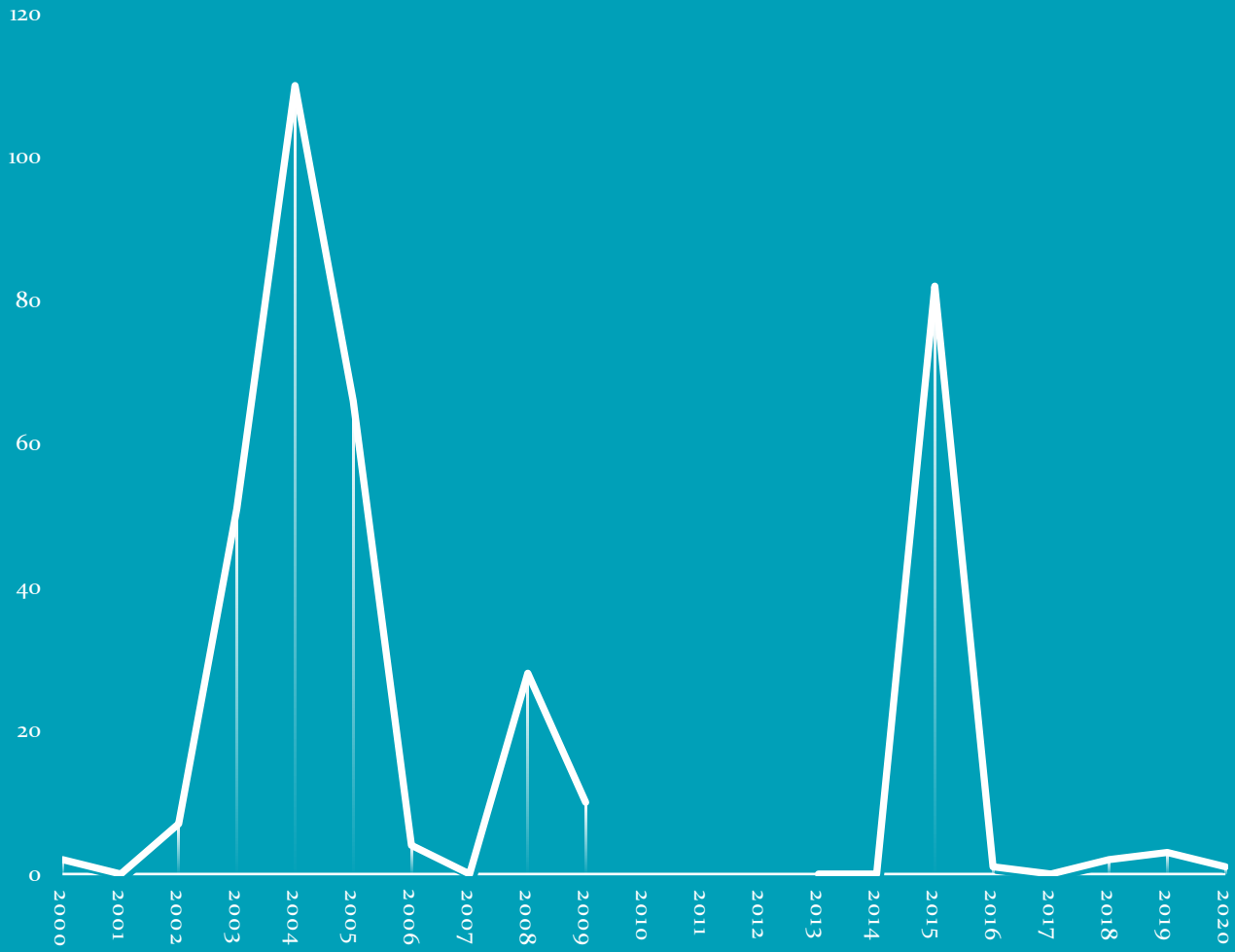
### Conservation Status:

Sanderlings are one of our most common shorebirds, their populations are declining, and they are listed as a species of high concern by the Western Hemisphere Shorebird Reserve Network. Shorebird population sizes are difficult to estimate because the birds cluster in large flocks scattered over large distances. However, surveys suggest that Sanderling populations are declining, sharply in places. Declines are probably caused by development or alteration of shoreline habitats; the sandy beaches Sanderlings live on are also prized by humans for recreation. Sanderlings are also vulnerable to pollution from pesticides and, especially, oil spills due to their close association with the ocean edge. In some areas, notably Chesapeake Bay where there has been a large fishery for horseshoe crab eggs, humans compete with Sanderlings and other shorebirds for food. Conservation of long-distance migrants like Sanderlings is always complicated because of the birds' reliance on distantly separated staging areas, which must provide enough food at the right time, and which are all subject to their own habitat pressures.

The Sanderling has a Conservation Concern Ranking of 11.

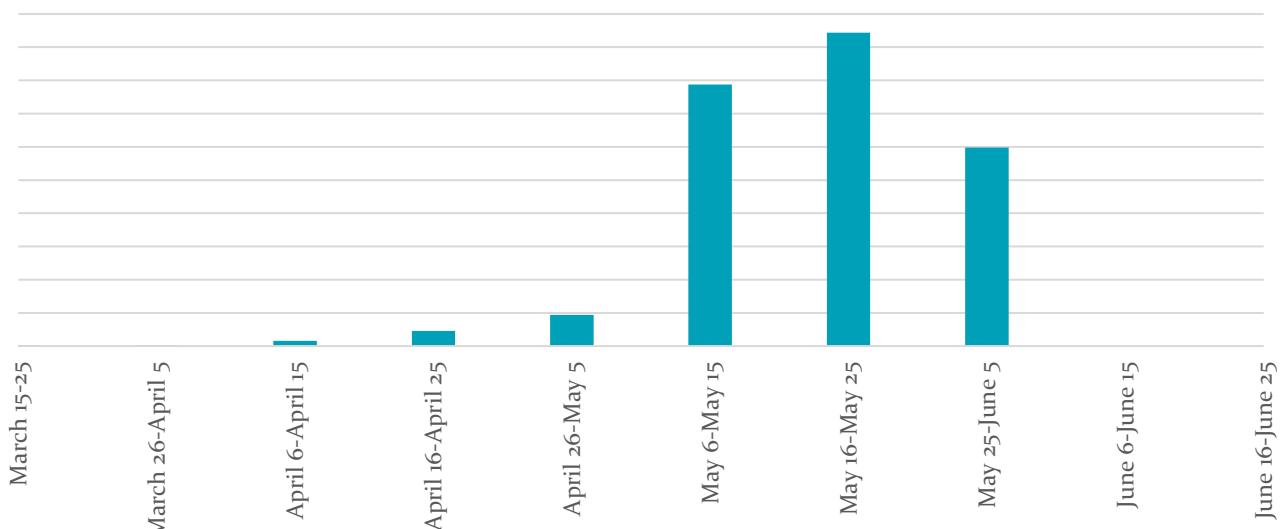


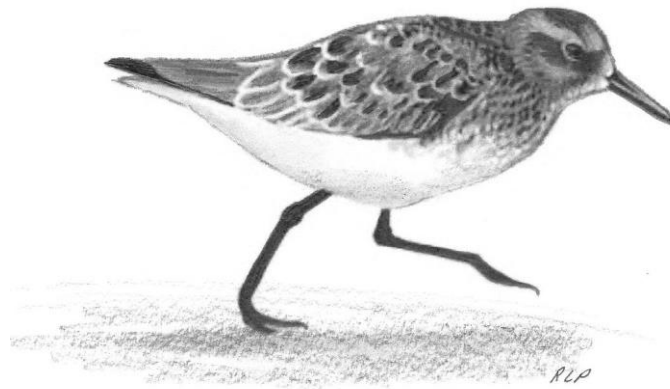
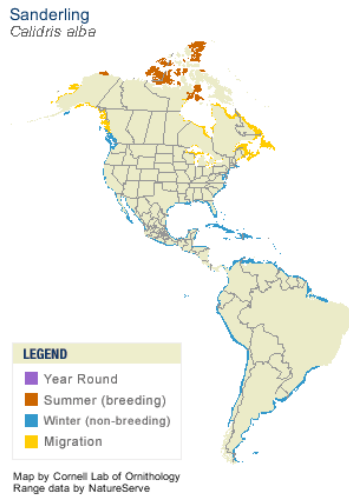
# SANDERLING



The International Shorebird Survey was not conducted in 2010, 2011, and 2012

## Sanderling Chronology





- The Sanderling is one of the world's most widespread shorebirds. Though they nest only in the High Arctic, in fall and winter you can find them on nearly all temperate and tropical sandy beaches throughout the world. The Ruddy Turnstone and the Whimbrel are the only other shorebirds that rival its worldwide distribution.
- The Sanderling's mating system varies from area to area and possibly from year to year. Sanderlings are usually monogamous, but in some cases the female breeds with multiple males within a single breeding season.
- Nonbreeding Sanderlings often stay on the wintering grounds through the summer, saving energy by avoiding the long trip to the Arctic nesting grounds. Many nonbreeders remain in South America, while fewer remain along the North American coasts.
- When threatened by a Peregrine Falcon, Sanderlings fly in a compact flock that maneuvers erratically over the water. Whenever you see a flock of shorebirds abruptly take flight all at once, scan the skies to see if a falcon is the cause of the sudden alarm. In their escapes, individual Sanderlings may occasionally dive right into the water.
- After foraging on the beach, Sanderlings often regurgitate sand pellets studded with fragments of mollusk and crustacean shells.
- The oldest Sanderling on record was at least 13 years, 1 month old. It lived in Nova Scotia.

# Semipalmated Sandpiper

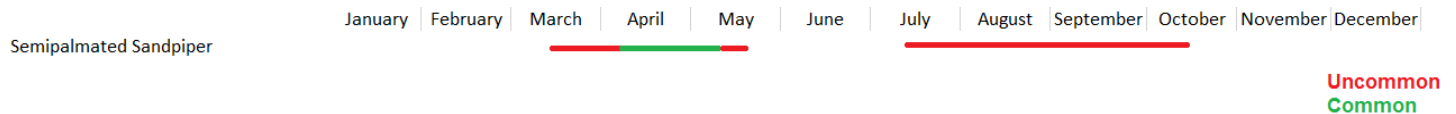
*Calidris pusilla*



The Semipalmated Sandpiper is one of the shorebirds that fall into a group that is generically called "peeps". They are very similar in appearance and very challenging to distinguish in the field. In Kansas, these include the Baird's Sandpiper, Least Sandpiper, Western Sandpiper, White-rumped Sandpiper and of course the Semipalmated Sandpiper. The term "peep" derives from the sound of the typical calls these birds make.

## Area Status:

A common migrant with some small flocks beginning to arrive in March; but the peak of migration runs from early April into mid-May. The average first of the season observation date is around April 5<sup>th</sup>. Numbers are highly variable from year to year. Large numbers can be seen some years whereas in other years very few are observed. Fall migration runs from early July into late October, with a couple of sightings even into December.



## High Count:

64,500 were recorded in May of 1986.

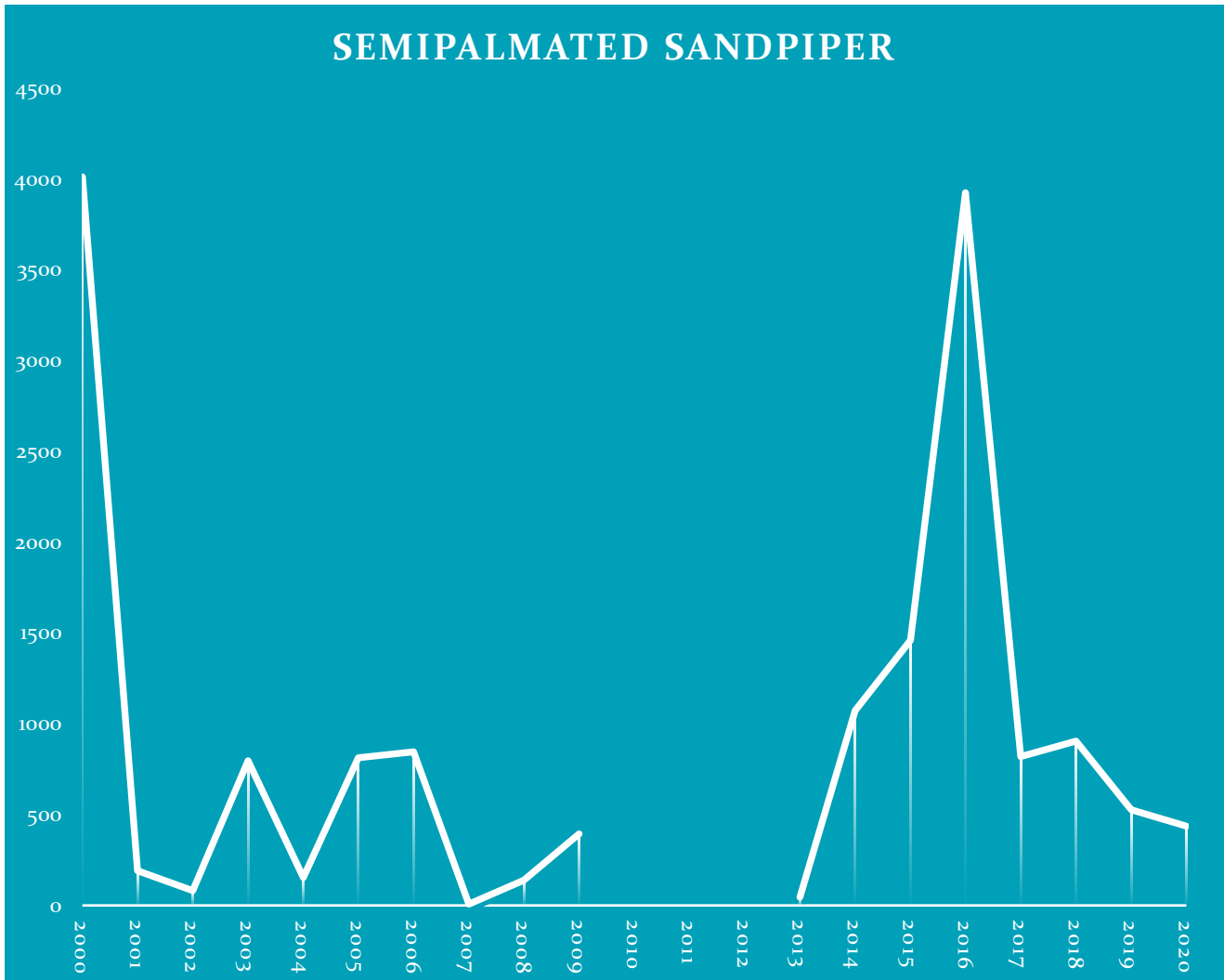
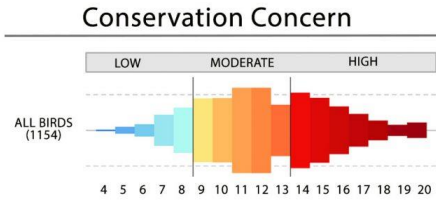
## Habitat:

As with the other members of the "peep group", the Semipalmated Sandpiper feeds along open shorelines on wet mudflats and in shallow water with a depth of usually less than 1".

## Conservation Status:

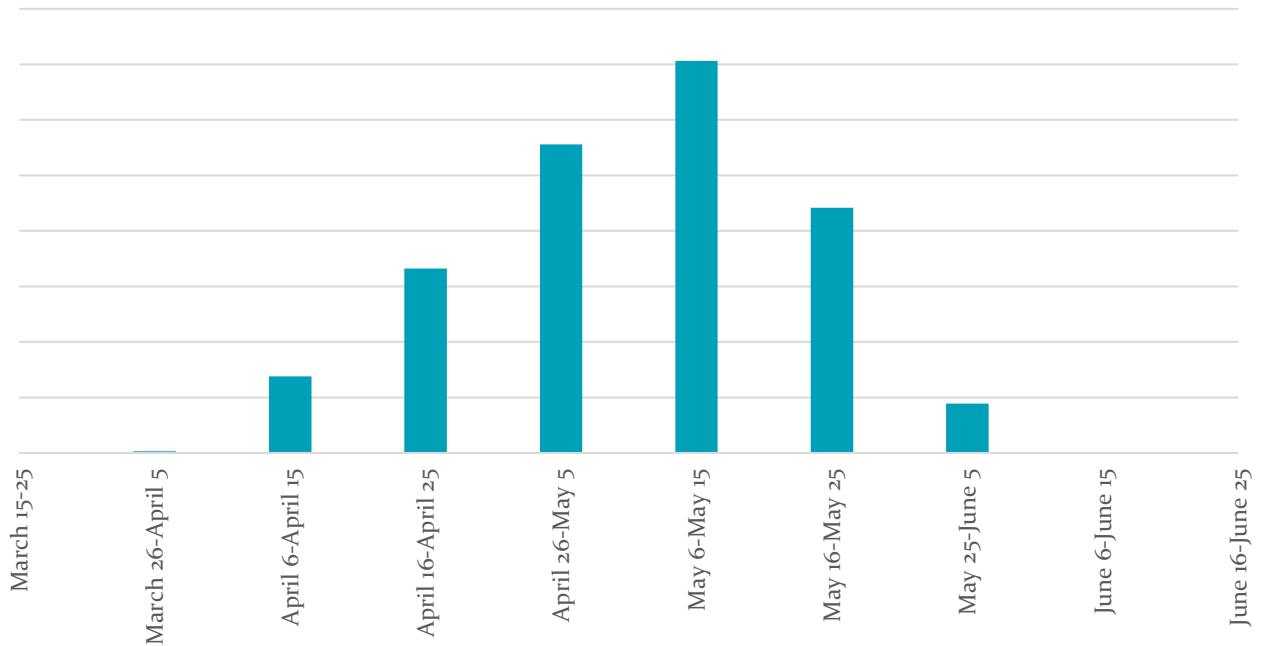
The Semipalmated Sandpiper has three North American breeding populations: western (Alaska), central (western Canadian Arctic), and eastern (eastern Canadian Arctic). Population trends have fluctuated over the last several decades. Overall, it appears that the Alaskan and central populations are currently stable, with possible increases in some areas, but the eastern population is declining. They depend on a few key stopover areas. Some have been protected, but others are vulnerable to development. The Semipalmated Sandpiper is on the 2016 State of the Birds Watch List, which lists bird species that are at risk of becoming threatened or endangered without conservation action.

The Semipalmated Sandpiper has a Conservation Concern Ranking of 14.

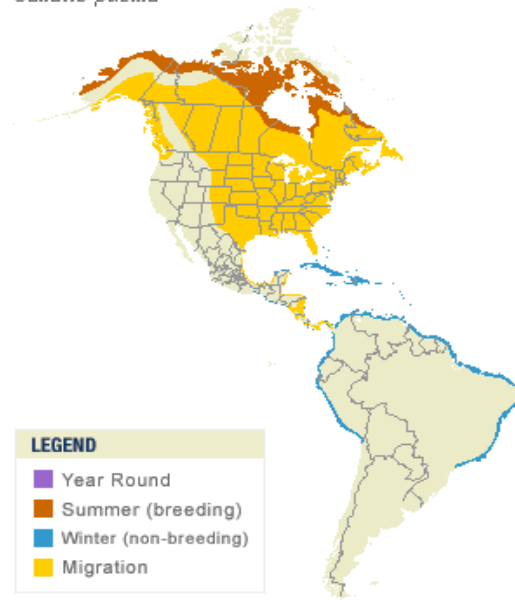


The International Shorebird Survey was not conducted in 2010, 2011, and 2012

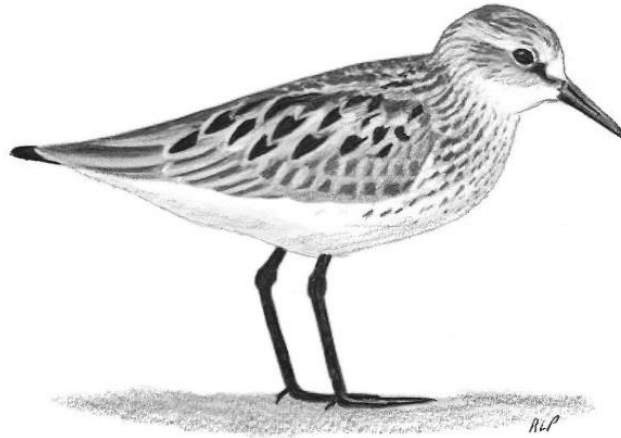
## Semipalmated Sandpiper Chronology



### Semipalmated Sandpiper *Calidris pusilla*



Map by Cornell Lab of Ornithology  
Range data by NatureServe



- Semipalmated Sandpipers from eastern populations probably undertake nonstop transoceanic flights of 1,900 - 2,500 miles from New England and southern Canada to South America, powered by extensive fat reserves.
- The Semipalmated Sandpiper gets its common name from the short webs between its toes ("palmated" means webbed). The Western Sandpiper is the only other small sandpiper with similarly webbed toes
- The oldest recorded Semipalmated Sandpiper was at least 14 years, 2 months old when it was recaptured and rereleased during banding operations in New Brunswick.



## Western Sandpiper

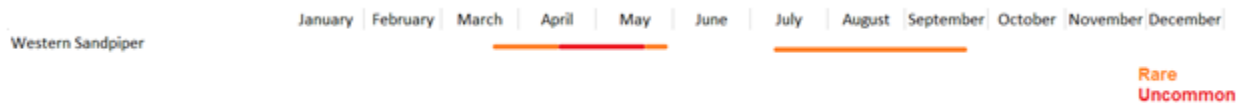
*Calidris mauri*



The Western Sandpiper is a member of the five species of shorebirds known as “peeps” because of the difficulty in identifying the individual species. Although the least common of the five species at Cheyenne Bottoms, it can easily be misidentified as a Semipalmated Sandpiper and vice versa. Because of this possibility of misidentification, especially at a distance, it is likely that this species has been underreported.

### Area Status:

The Western Sandpiper is an uncommon spring migrant and accidental winter visitor at Cheyenne Bottoms. Spring migration runs from late March into late May, with the average first of the season observation date being around April 6<sup>th</sup>. Fall migration runs from early July into late September, although fall numbers are greatly reduced when compared to spring.



### High Count:

1,580 were recorded in May of 1991.

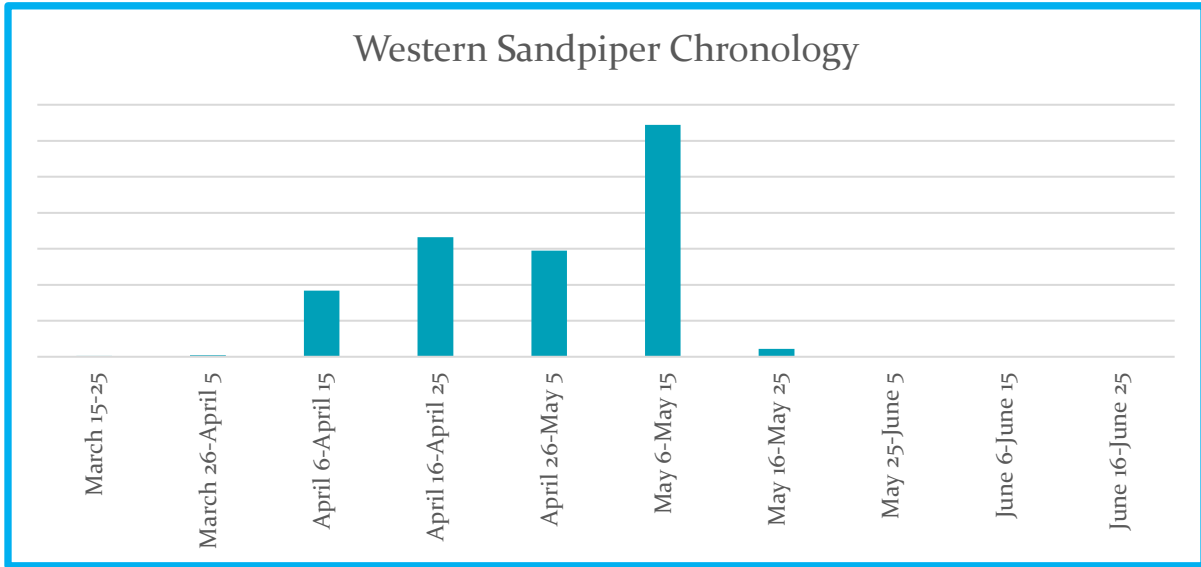
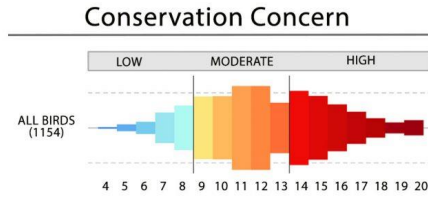
### Habitat:

The Western Sandpiper prefers to feed along open shorelines, on wet mudflats and in shallow water up to about one and ½ inches deep.

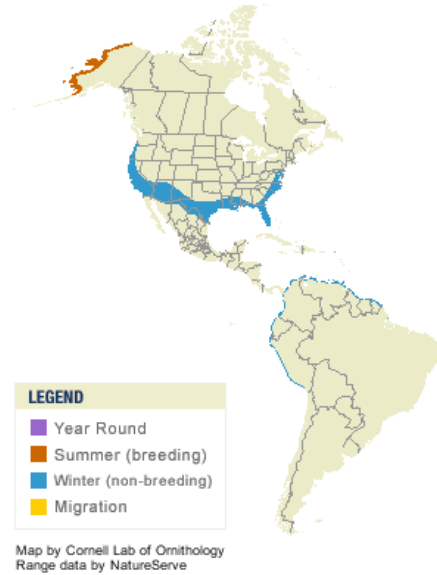
### Conservation Status:

Western Sandpipers are still common, and the population appears to be stable. However, they are vulnerable because such a sizable percentage of the population gathers in just a few spots during migration. Development, disturbance and pollution could affect the population.

The Western Sandpiper has a Conservation Concern Ranking of 13.



Western Sandpiper  
*Calidris mauri*





- In migration, the Western Sandpiper stages in huge, spectacular flocks, particularly along the Pacific coast from San Francisco Bay to the Copper River Delta in Alaska. Estimates suggest that as many as 6,500,000 individuals pass through the Copper River Delta during just a few weeks each spring.
- The oldest recorded Western Sandpiper was at least 9 years, 2 months, when it was recaptured and rereleased during banding operations in Kansas.

## Least Sandpiper

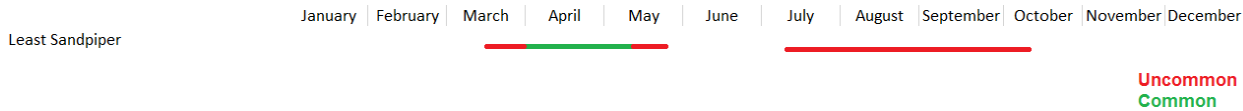
*Calidris minutilla*



The Least Sandpipers are the smallest of the small sandpipers known as “peeps”—not much bigger than a sparrow. A common shorebird at Cheyenne Bottoms, but one that may easily be overlooked or identified as a different species.

**Area Status:**

A common spring migrant and an accidental winter visitor. Spring migrants begin arriving in mid-March and most have continued to the northern breeding grounds by mid-May. The average first of the season observation date is around March 20th. Fall migration begins in early July and lasts until around mid-October.



**High Count:**

50,182 were recorded in May of 1984.

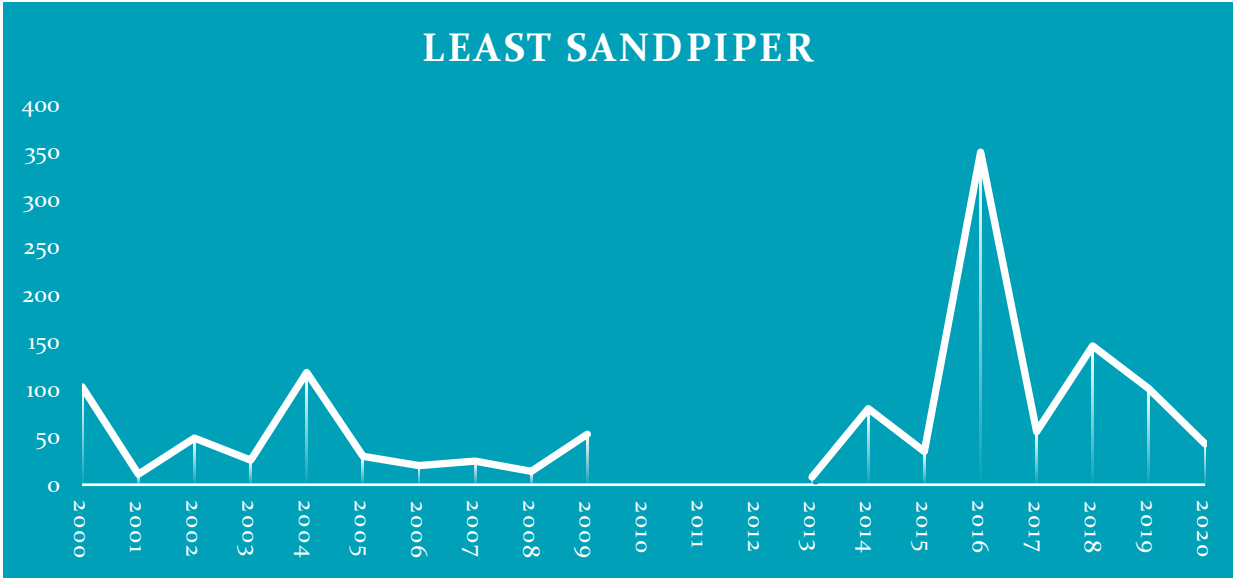
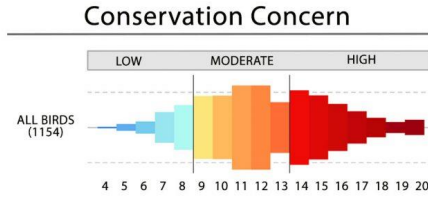
**Habitat:**

Least Sandpipers feed on wet mudflats, exposed shorelines and in wet meadows and flooded fields. They tend to favor muddier shorelines than other sandpipers and usually feed in water less than 1 inch in depth.

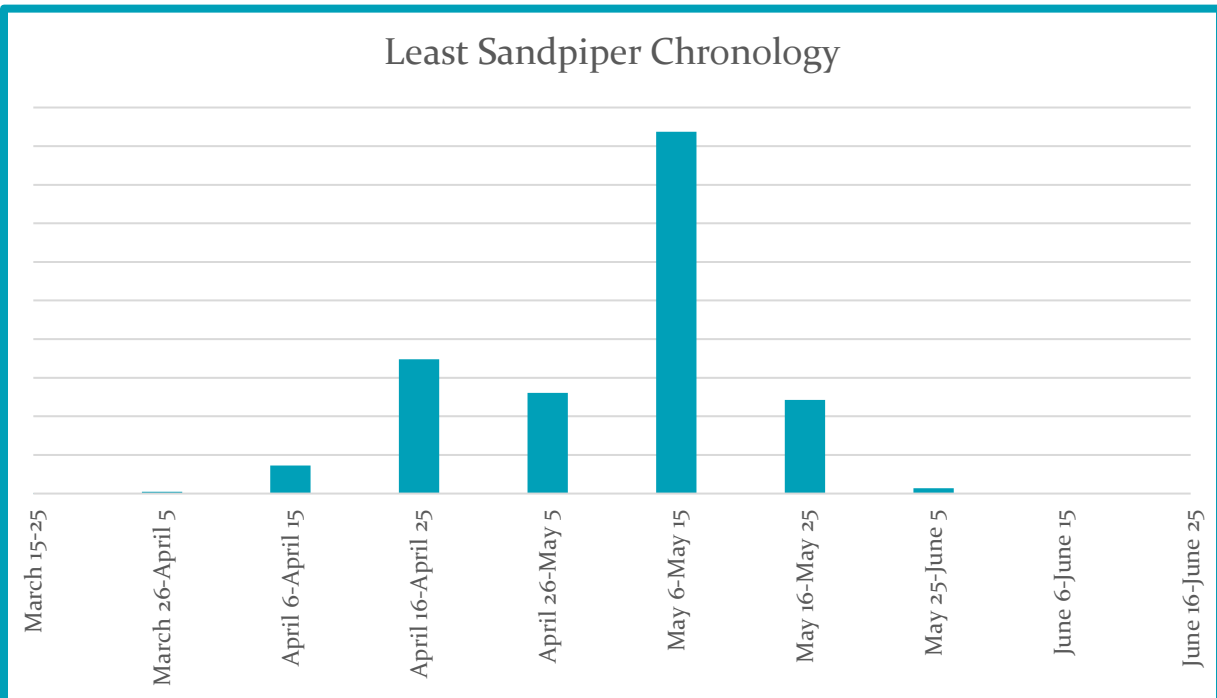
**Conservation Status:**

Least Sandpipers are widespread and numerous, and their populations appear stable; but may have experienced declines over the last few decades. Through the early twentieth century Least Sandpipers were among the many small sandpipers shot by commercial hunters on the Atlantic coast, but their numbers recovered after the Migratory Bird Treaty Act in 1918. Today, one of their biggest conservation concerns is wetland degradation and destruction. Populations in western and central Canada are thought to be stable, but those in eastern North America are declining. Between 1974 and 1991, the fall migration count in eastern Canada fell by 3 percent each year. The Maritime Provinces population dropped by 15.8 percent annually from 1974–1998. Because their breeding range is broad and remote, it’s likely the declines are happening at other points in their life cycle, such as from losses of wetland habitat on their migration routes and wintering grounds.

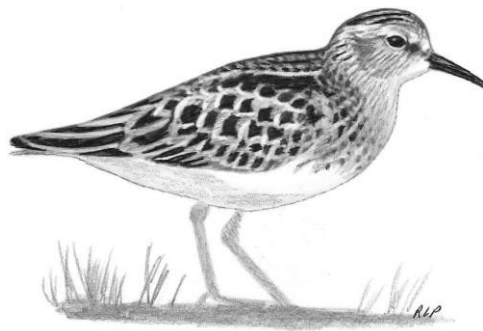
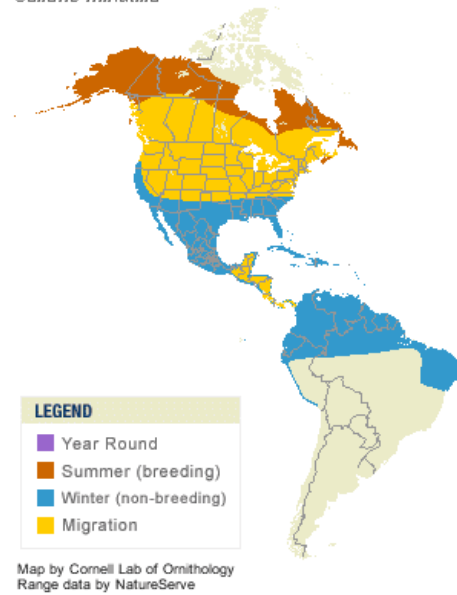
The Least Sandpiper has a Conservation Concern Ranking of 10.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Least Sandpiper  
*Calidris minutilla*



- The Least Sandpiper is the smallest shorebird in the world, weighing in at about one ounce and measuring five to six inches long. Males are slightly smaller than females.
- Eastern populations probably fly nonstop over the ocean from the Gulf of St. Lawrence and New England to wintering grounds in northeastern South America, about 1,800 to 2,500 miles.
- Researchers studying Least Sandpipers discovered a new feeding mechanism. While probing damp mud with their bills, the sandpipers use the surface tension of the water to transport prey quickly from their bill tips to their mouths.
- Least Sandpipers hunt for food on slightly drier, higher ground compared to other small sandpipers. Although numerous worldwide, they usually flock in smaller numbers—dozens rather than hundreds or thousands—than some other shorebirds.
- The oldest Least Sandpiper on record was a female, and at least 15 years old when she was recaptured and rereleased by a Nova Scotia researcher in 1985.

# White-rumped Sandpiper

*Calidris fuscicollis*



The trademark white rump patch is usually hidden by the long wings, which are a clue to this bird's long migrations. Many travel annually from Canada's Arctic islands to the southern tip of South America; some have gone even farther, to islands near the Antarctic Peninsula. In North America, White-rumped Sandpipers are seen in greatest numbers during northward migration through the Great Plains. At some stopover points, such as Cheyenne Bottoms, thousands may be present in late spring, although this species is not as numerous as it once was.

## Area Status:

An abundant spring migrant while uncommon during fall migration. Early spring migrants may begin arriving in late March, but there are fewer records of this species during March and April when compared to May. The peak of migration runs from early May into early June. However, the average first of the season observation date is around April 27<sup>th</sup>.



## High Count:

75,000 were recorded in May of 1991.

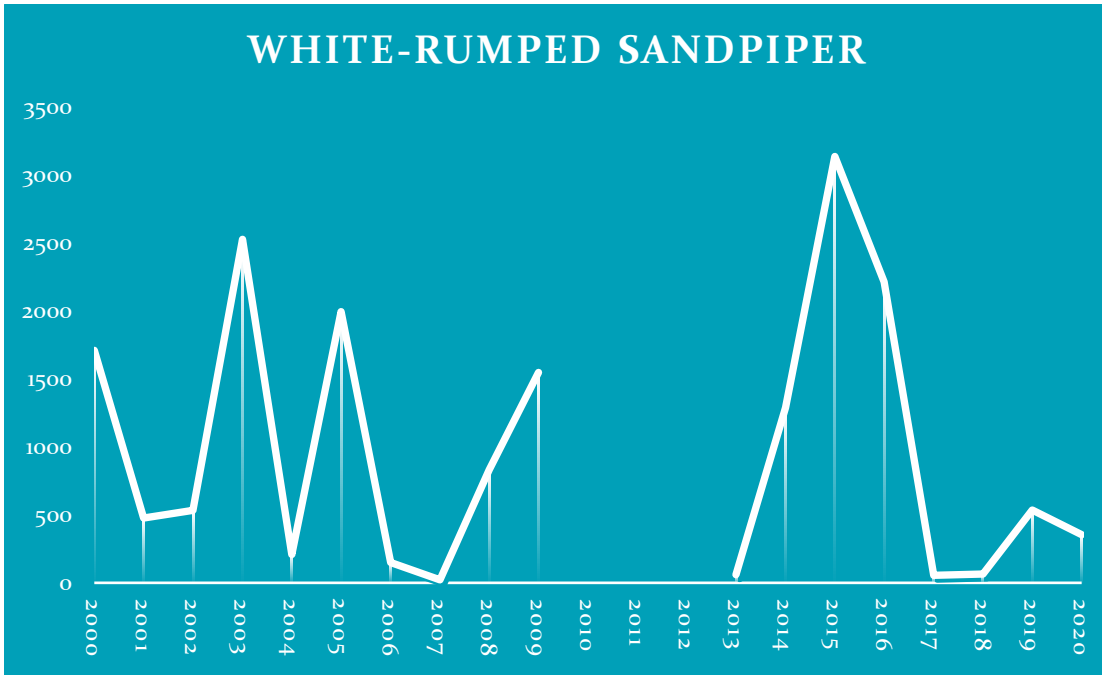
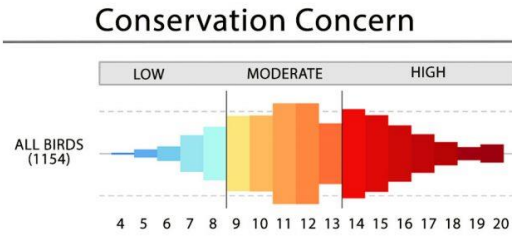
## Habitat:

The term shorebird truly fits the White-rumped as it prefers to feed in grassy marshes with low vegetation height and on mudflats and in flooded fields. It is usually found in water no deeper than two inches.

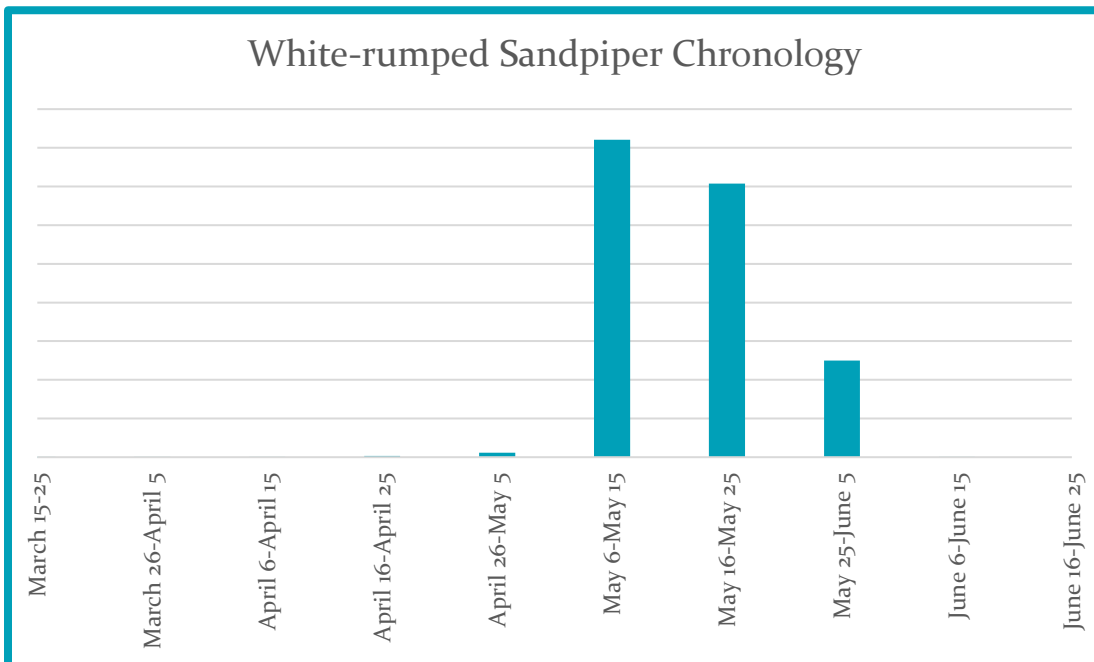
## Conservation Status:

Because their migration often involves long flights, this species is highly dependent on stopover points, such as Cheyenne Bottoms, to feed and refuel for their next flight. Loss of these staging areas could cause serious problems. Currently the White-rumped Sandpiper is relatively common, but as with most shorebirds they are at risk for population declines due to habitat loss.

The White-rumped Sandpiper has a Conservation Concern Ranking of 13

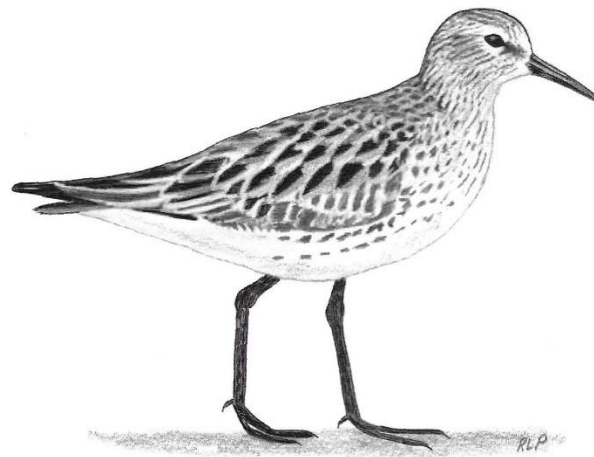
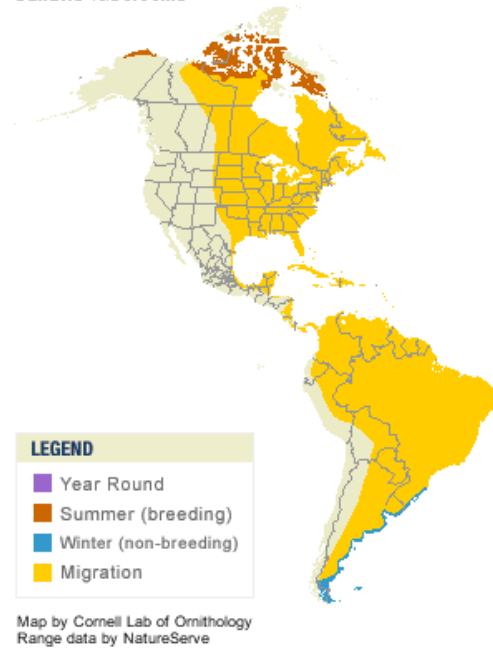


The International Shorebird Survey was not conducted in 2010, 2011, and 2012





White-rumped Sandpiper  
*Calidris fuscicollis*



- The White-rumped Sandpiper has dark rump feathers. The white feathers at the base of the tail are the upper tail coverts, special feathers that cover the base of the stiff tail feathers.
- The White-rumped Sandpiper has one of the longest migration routes of any American bird, breeding in arctic Canada and wintering in southern South America. Southbound migrants fly over the Atlantic Ocean from northeastern North America to South America, then gradually move southeast along the coast before turning inland to go across the Amazon Basin, travel requiring about one month.
- The oldest recorded White-rumped Sandpiper was at least 7 years old. It was banded in Quebec in 1972 and found in Nunavut in 1978.

# Baird's Sandpiper

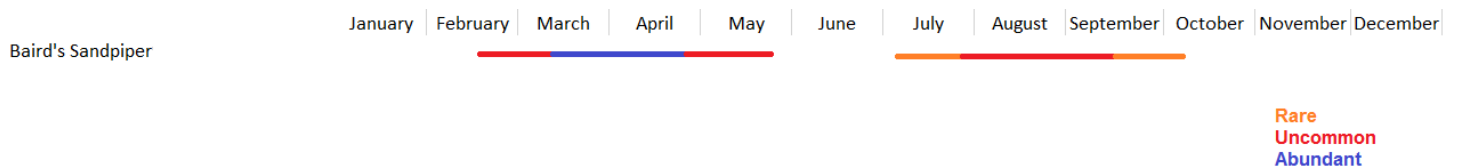
*Calidris bairdii*



The Baird's Sandpiper is one of the first shorebirds to arrive at Cheyenne Bottoms in the spring and in some years the numbers can be very impressive. As with other species of shorebirds, the numbers recorded in the 1980s and early 1990s was much greater than what has been recorded since that time. This was because of how the surveys were done in those years, because shorebird numbers are on the decline, and due to weather and habitat conditions. Some years there may be too much water or no water or even too much vegetation to suit shorebirds. Twenty years ago, this species was the fifth most common shorebird during spring migration, but during the last few years it has moved up to the number one spot.

## Area Status:

The Baird's Sandpiper would be considered an abundant migrant, with records of this species arriving at Cheyenne Bottoms in February. The peak of migration runs from mid-March into late April and some years a few birds will still be around in May. The average first of the season observation date is around March 19<sup>th</sup>.



## High Count:

81,258 were recorded in April of 1991.

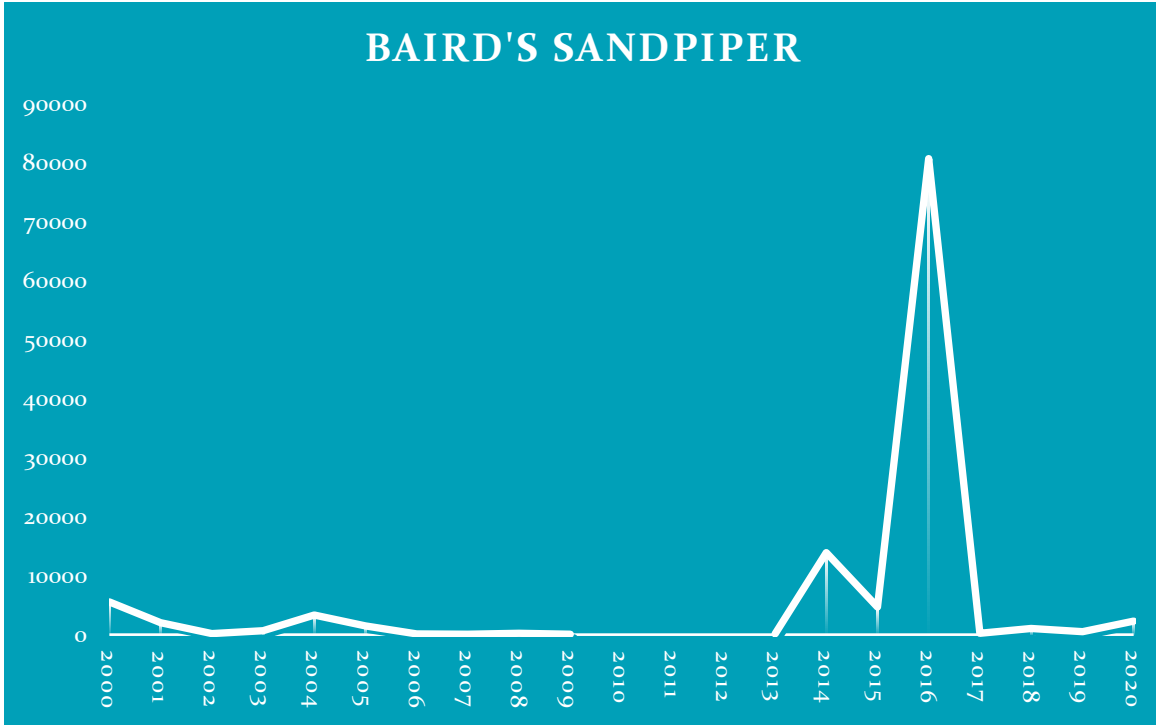
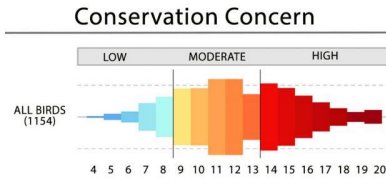
## Habitat:

The Baird's Sandpiper is a true bird of the mud flats and shorelines. Rarely feeding in water more than an inch in depth. It can sometimes be found in grassy areas with standing water and in crop ground that has very little standing vegetation.

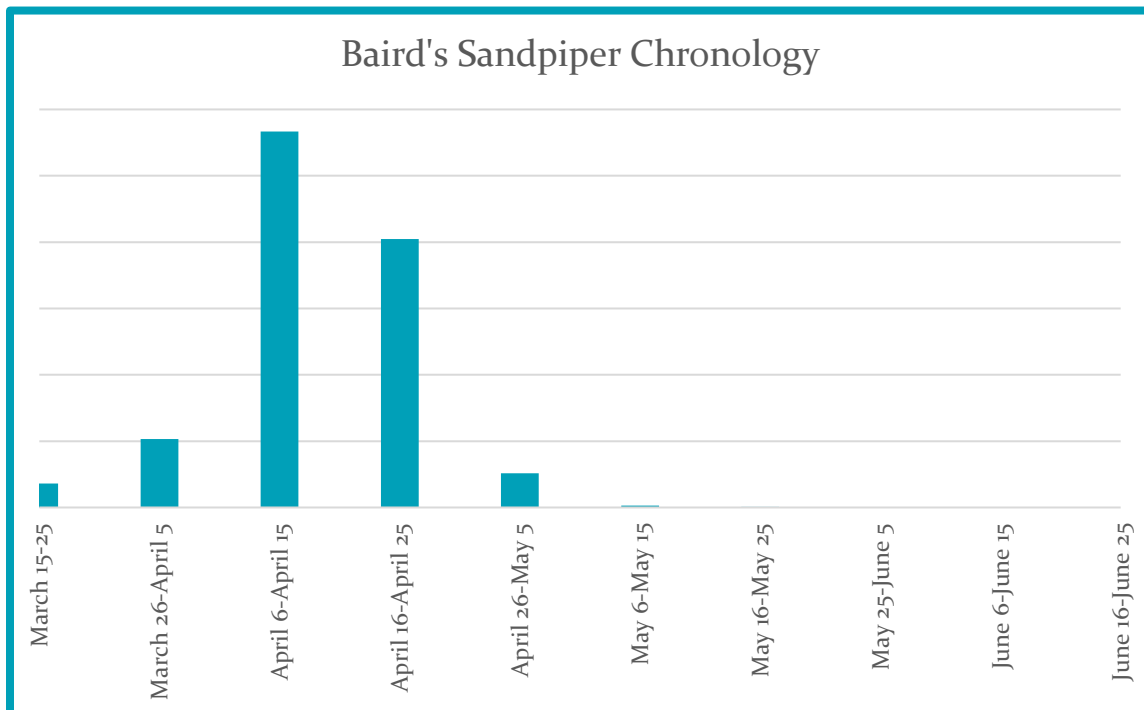
## Conservation Status:

At the present time, there is no evidence of significant population trends to Baird's Sandpiper. They are not threatened globally and both breeding and wintering grounds appear secure. The North American population is estimated at 300,000 individuals.

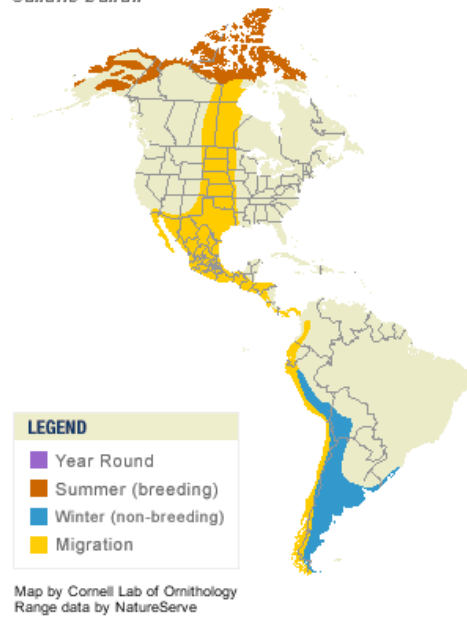
The Baird's Sandpiper has a Conservation Concern Ranking of 12.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



**Baird's Sandpiper**  
*Calidris bairdii*



- The migration of the Baird's Sandpiper is long but rapid. After departing high-arctic breeding grounds and staging in southern Canada and the northern United States, most individuals travel 3,700 miles or more directly to northern South America, some going on as far as Tierra del Fuego. Many individuals complete the entire 9,300-mile journey in as few as five weeks.
- The female Baird's Sandpiper lays a clutch of eggs that is up to 120% of her body mass in four days, shortly after arriving in the Arctic, with essentially no stored fat.

# Pectoral Sandpiper

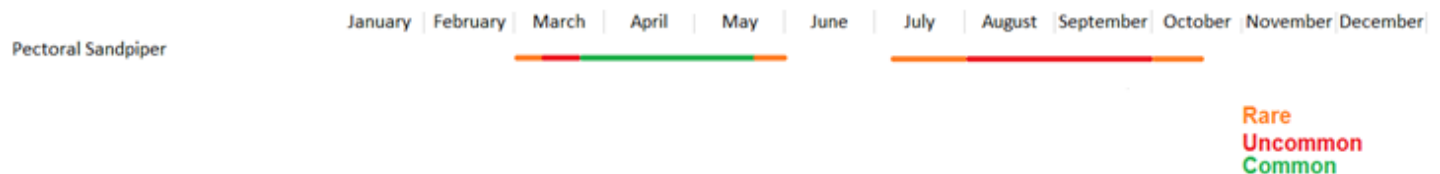
*Calidris melanotos*



The Pectoral Sandpiper is a member of what I call the “top ten.” In other words, this species is a member of the group of shorebirds in which a significant percentage of their population migrates through the Central Plains during the spring and will stage at Cheyenne Bottoms when the right habitat is available. The other members of the top ten include: Semipalmated Sandpiper, Least Sandpiper, White-rumped Sandpiper, Baird’s Sandpiper, Stilt Sandpiper, Long-billed Dowitcher, Upland Sandpiper, American Golden-Plover and the Buff-breasted Sandpiper.

### Area Status:

The Pectoral Sandpiper is a common migrant with early spring arrivals start showing up in early March, however, the peak of spring migration runs from late March into late May. The average first of the season observation date is around April 3<sup>rd</sup>.



### High Count:

18,700 were recorded in May of 1993.

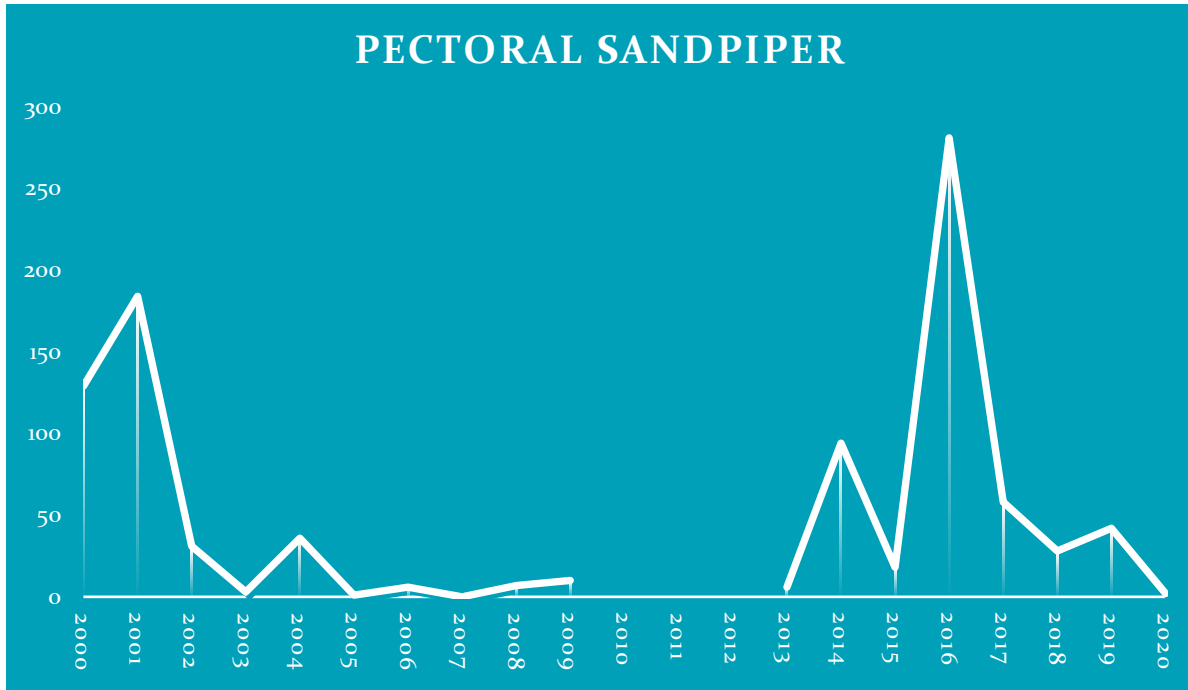
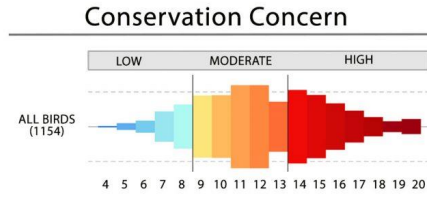
### Habitat:

This species prefers to feed in pastures and wet grassy areas during spring migration. It will utilize mudflats, but to a lesser extent when compared to wet grassy areas. When found in water the average depth is usually only around one inch.

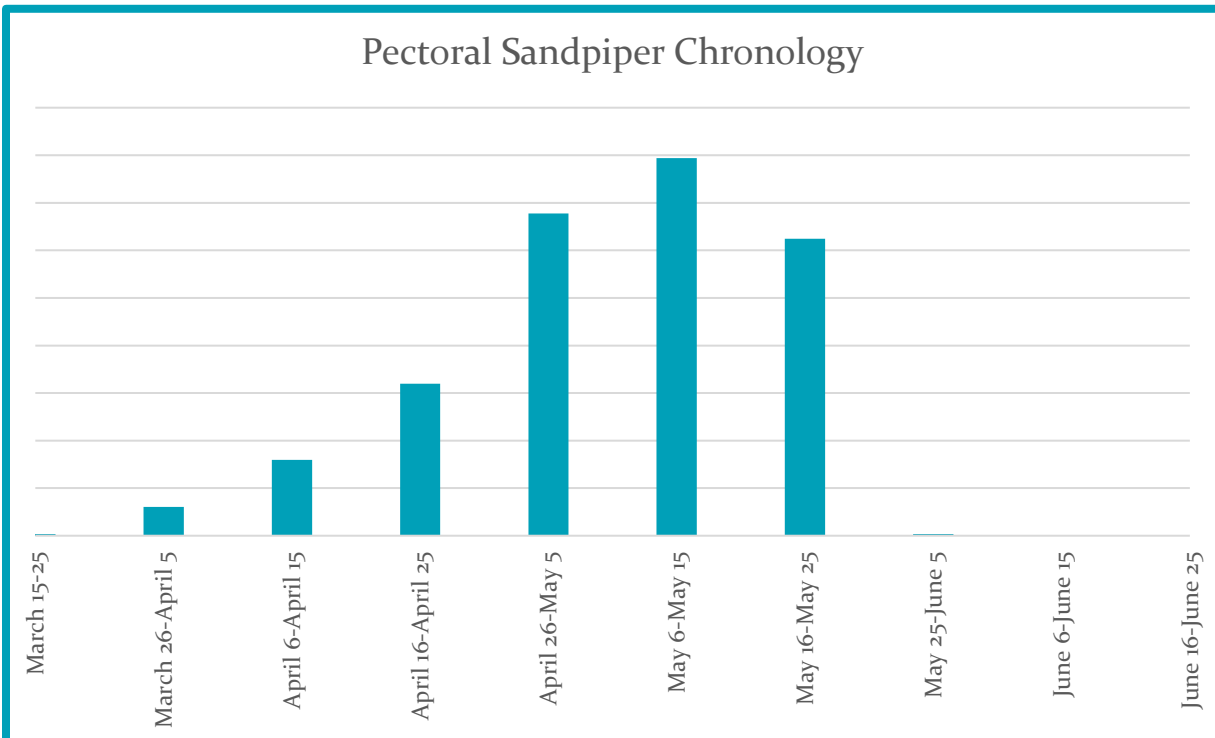
### Conservation Status:

Pectoral Sandpipers were abundant in the 19th century, but populations were markedly reduced by market hunting. There is little information on current population trends, though numbers appear to be declining. In many migration surveys, these birds occur in vegetated habitats where they can be difficult to detect, and variable numbers are often recorded. However, overall, counts have declined since the early 1980s. Pectoral Sandpipers are on the State of the Birds Watch List, which lists bird species that are at risk of becoming threatened or endangered without conservation action.

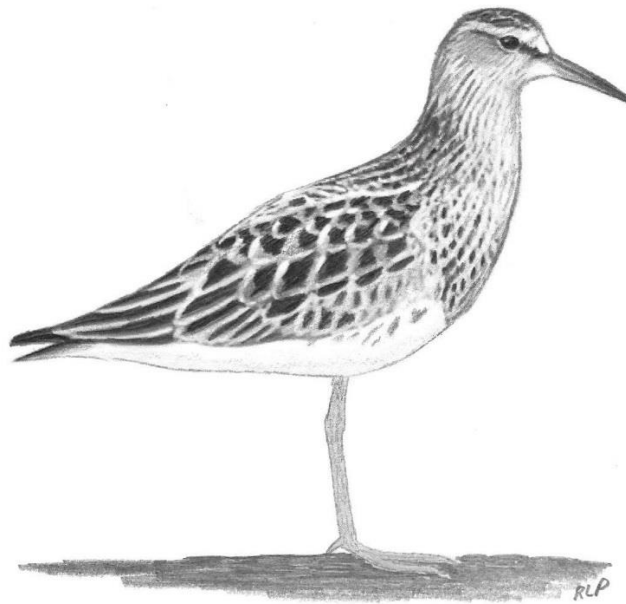
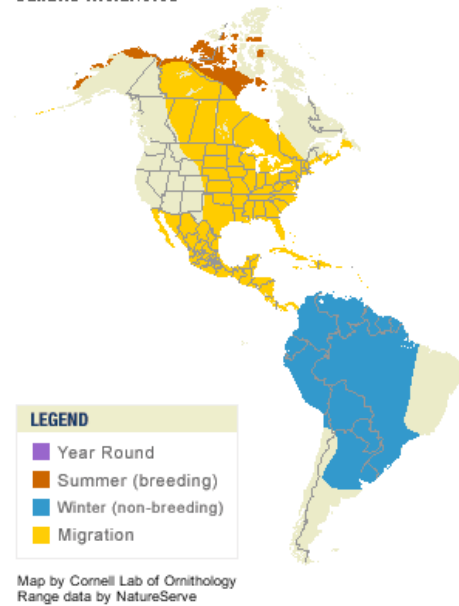
The Pectoral Sandpiper has a Conservation Concern Ranking of 13.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Pectoral Sandpiper  
*Calidris melanotos*



- The breeding male Pectoral Sandpiper has an inflatable throat sac, which expands and contracts rhythmically during display flights. The accompanying vocalization consists of a series of hollow hoots and is one of the most unusual sounds heard in summer on the arctic tundra.
- The oldest recorded Pectoral Sandpiper was at least 5 years, 11 months old when it was found in 1983 in El Salvador. It had been banded in Kansas in 1978.

## Dunlin

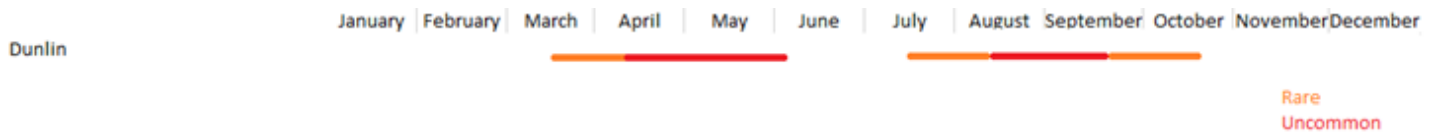
*Calidris alpina*



The Dunlin is a familiar shorebird around the world, where its bright reddish back and black belly, and long, drooping bill distinguish it from nearly all other shorebirds. It breeds across the top of both North America and Eurasia, and winters along coasts around the northern hemisphere. Its appearance at Cheyenne Bottoms can be quite variable, some years very few birds are recorded and other years a few hundred are recorded. Even within the year, the appearance of this bird varies during the migration period.

### Area Status:

The Dunlin is an uncommon migrant and accidental during the winter. During the International Shorebird Survey, there have been birds recorded in March, but the peak of migration runs from mid-April into late-May. The average first of the season observation is around April 15<sup>th</sup>.



### High Count:

572 were recorded in April of 1987.

### Habitat:

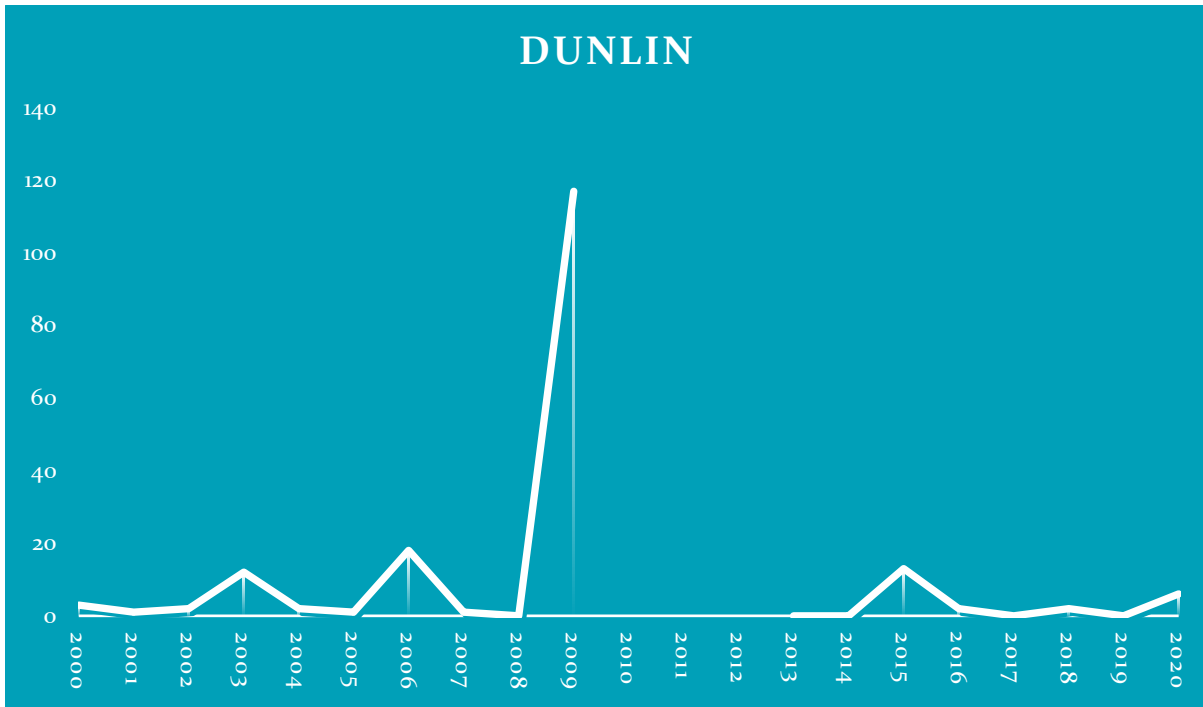
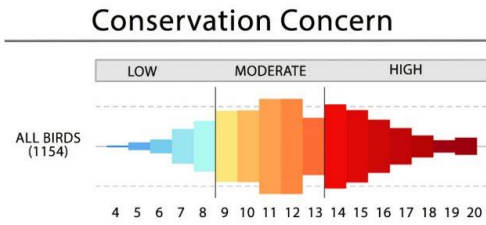
Typically found feeding with other shorebirds on mudflats and in wet fields and along the shore of lakes and ponds.

### Conservation Status:

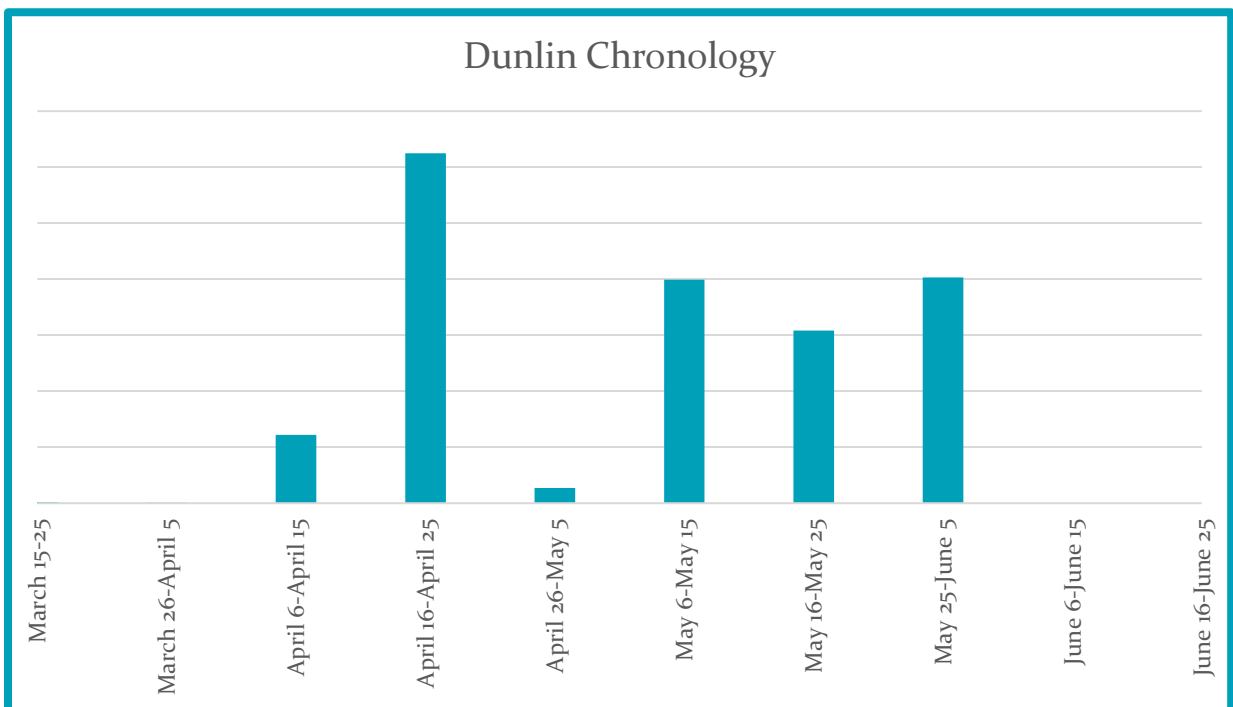
Dunlin are abundant, but there is little detailed information on population trends. There are three breeding populations in North America, and at least one appears to have significantly declined in recent decades. According to a 2012 study, the breeding group in central and eastern Canada comprises about 450,000 birds and appears stable. The second population breeds in western Alaska. There was not enough data collected in 2012 to estimate population size, so it remains listed at 550,000, which was the number reported in a 2006 study. This population also appears stable. The third group breeds primarily in northern Alaska and winters in Asia. This population appears to have declined by over 30% since 2006, and now numbers around 500,000. Taken together, the 2012 study estimates that there are 1.5 million breeding Dunlin in North America. The species is on the State of the Birds Watch List, which lists bird species that are at risk of becoming threatened or endangered without conservation action.



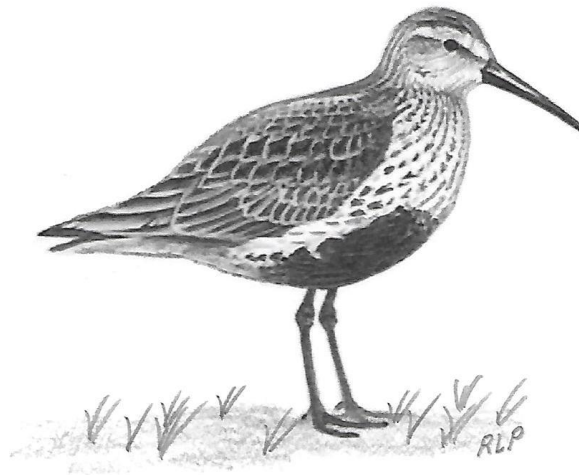
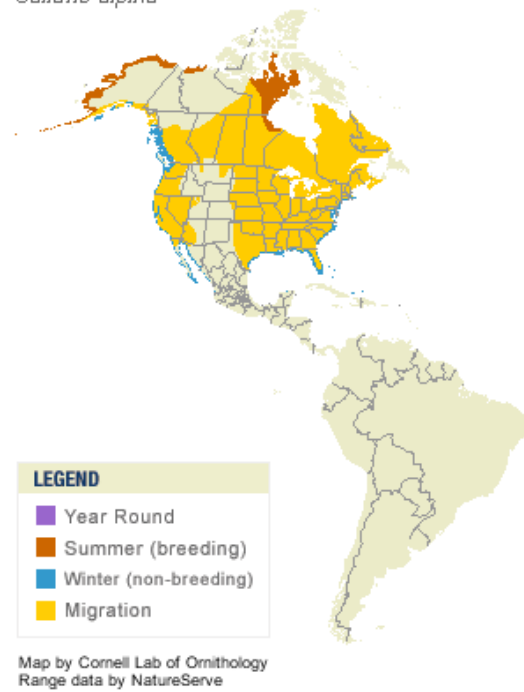
The Dunlin has a Conservation Concern Ranking of 11.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Dunlin  
*Calidris alpina*



- Dunlin breeding in northern Alaska apparently move west, migrating down the eastern side of Siberia and Asia to Japan and China.
- The oldest recorded Dunlin was at least 12 years, 5 months old when it was recaptured and rereleased during banding operations in California.

# Curlew Sandpiper

*Calidris ferruginea*



## Area Status:

The Curlew Sandpiper is an accidental migrant. A handful of sightings have been reported at Cheyenne Bottoms during the late 1960s and early 1970s. It is a Eurasian species that is rare, but a few have been recorded annually along the Atlantic coast, and much less frequently elsewhere. This species has not been recorded on the International Shorebird Survey.

## High Count:

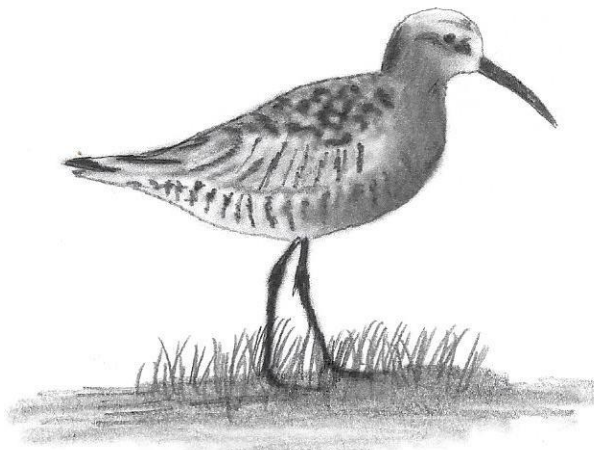
1 was reported in June of 1972.

## Habitat:

Tidal flats, beaches, wet tundra in summer. In migration, found in places where other small sandpipers congregate, including mudflats and beaches along coasts, muddy edges of ponds and lakes. Nesting habitat in Alaska is along low ridges and slight rises in wet, grassy tundra.

## Conservation Status:

Population trends are not well known. May have better nesting success in years with high lemming populations, when predators concentrate on lemmings and leave the sandpipers alone. This species has been listed as Near Threatened owing to a global population decline. The species has an extremely extensive range and the overall population trend is very difficult to determine due to varying trends in different populations along different flyways. The population using the East Asian-Australasian Flyway is thought to be experiencing severe declines due to habitat loss in the Yellow Sea.



# Stilt Sandpiper

*Calidris himantopus*



With its boldly barred breeding plumage, the Stilt Sandpiper is easily identified. In its gray nonbreeding plumage, it is much less distinctive and appears to be intermediate between a yellowlegs and a dowitcher. In fact, when I first started trying to identify shorebirds many years ago, I had a challenging time trying to distinguish between a dowitcher and Stilt Sandpiper during fall migration. It wasn't until I noticed that the Stilt Sandpiper sticks its tail up in the air when its head goes down to feed, whereas the dowitcher pretty much remains horizontal, did it get a little easier. Although, I still find identifying shorebirds in the fall a little challenging.

### Area Status:

The Stilt Sandpiper is a common migrant with early spring migrants starting to arrive in late March, but the peak of migration runs from early April into late May. The average first of the season observation date is around April 15<sup>th</sup>, and if the habitat conditions are favorable, the fall migration numbers can be as impressive as the spring.



### High Count:

54,900 were recorded in May of 1986.

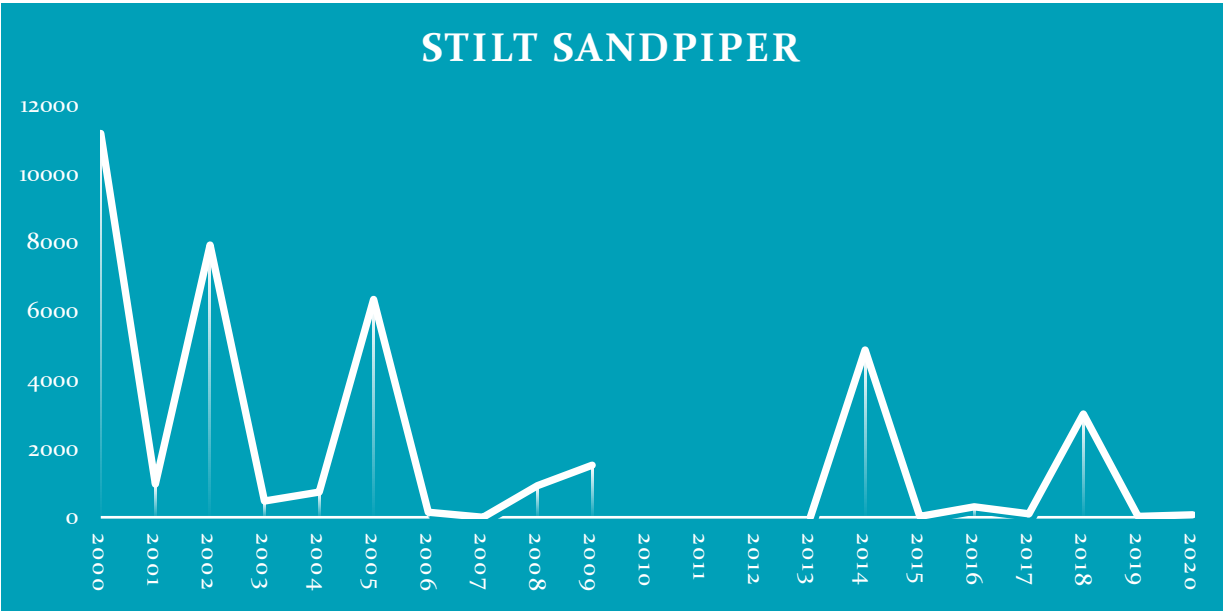
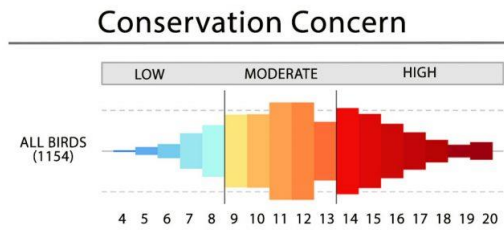
### Habitat:

The Stilt Sandpiper seems to prefer to feed in vegetation-free, shallow water areas such as mudflats, flooded fields, lakeshores and marshes. Usually found in water that ranges from one to four inches in depth.

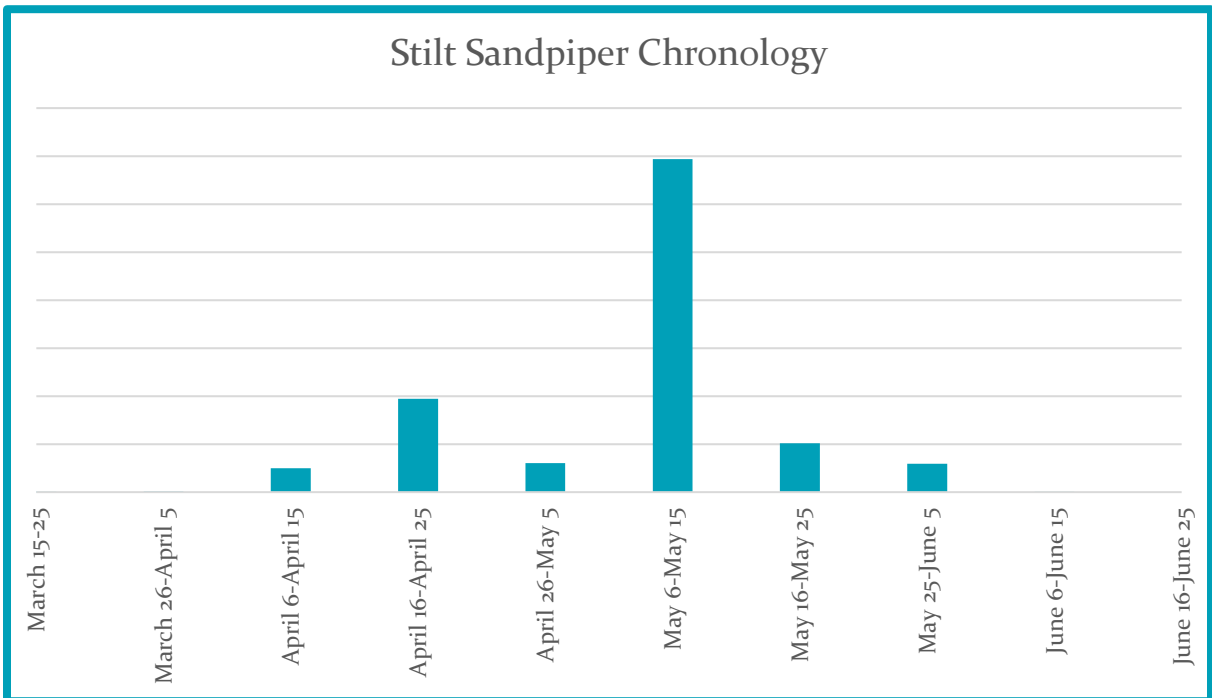
### Conservation Status:

The bulk of the Stilt Sandpiper's winter range currently lies south of the United States, but that may be about to change. Climate models predict a 52 percent loss of current winter range, with a broad expansion northward. Although mainly coastal now in the winter months in the United States, the Stilt Sandpiper may surge inland in the Southeast; portions of Arizona may become available, too. While this prediction may seem in some sense "good" for the Stilt Sandpiper, it is essential to keep in mind that the model does not examine potential changes in the extensive winter range south of the United States.

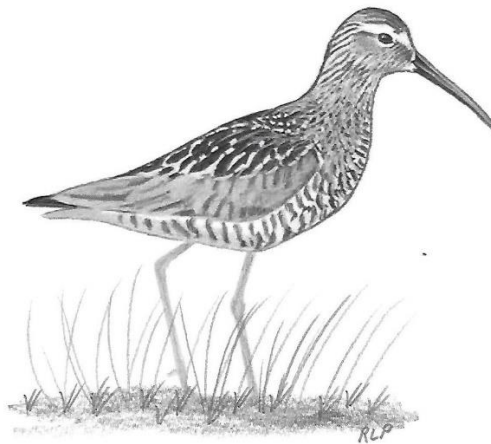
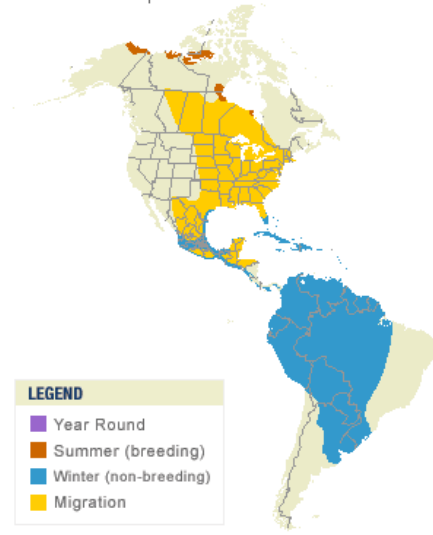
The Stilt Sandpiper has a Conservation Concern Ranking of 12.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



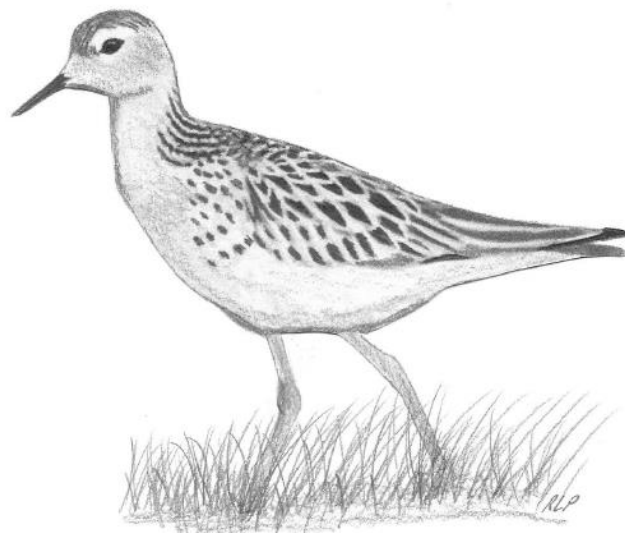
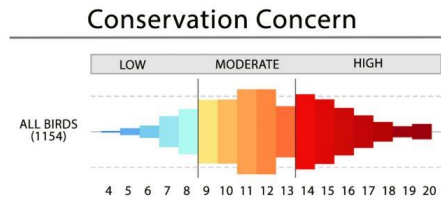
Stilt Sandpiper  
*Calidris himantopus*



- The main southward migration route of the Stilt Sandpiper passes through the middle of the continent, west of the Mississippi River. From here, in fall, the species migrates over water to the Caribbean or northern South America, where many birds interrupt their migration to molt flight feathers before continuing to winter haunts in inland central South America.
- The oldest recorded Stilt Sandpiper was at least 11 years, 1 month old, when it was recaptured and rereleased during banding operations in Texas.



The Buff-breasted Sandpiper has a Conservation Concern Ranking of 15.



- The Buff-breasted Sandpiper is unique among North American shorebirds in having a lek mating system. Males defend relatively small territories that provide no resources for females and are simply display sites to which females can be attracted. Females select a mate and then leave to nest and raise their chicks elsewhere.



## Ruff

*Calidris pugnax*



### Area Status:

The Ruff is an accidental migrant; all the known sightings of this species have occurred in the spring. There were a couple of sightings recorded in the 1980s and the most recent sighting was in April of 2004. The photograph above is the bird seen in 2004. The Ruff is a Eurasian species that is rare along the Atlantic and Pacific coasts, but an accidental visitor in the Central United States. This species was not recorded during the International Shorebird Survey.

### High Count:

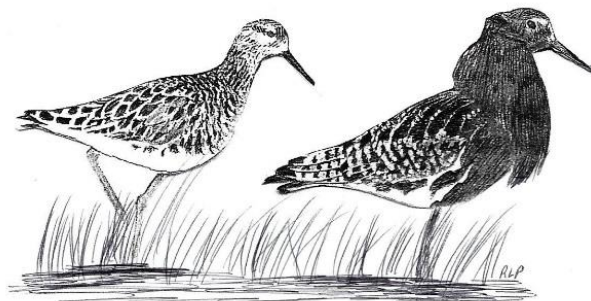
1 in April of 2004.

### Habitat:

Found mainly along grassy edges of marshes and ponds. Usually a single bird that forages independently, but often with yellowlegs and Pectoral Sandpipers.

### Conservation Status:

The most important breeding populations in Europe, Russia and Sweden are stable, and the breeding range in Norway has expanded to the south, but populations have more than halved in Finland, Poland, Latvia and The Netherlands. Although the small populations in these countries are of limited overall significance, the decline is a continuation of trends towards range contraction that has occurred over the last two centuries. The decline in numbers in Europe has been attributed to drainage, increased fertilizer use, the loss of formerly mowed or grazed breeding sites and over-hunting.



# Dowitchers

## *Long-billed Dowitcher* *Limnodromus scolopaceus*



## *Short-billed Dowitcher* *Limnodromus griseus*

The Short-billed Dowitcher and the Long-billed Dowitcher are extremely similar and difficult to distinguish in most plumages. At a distance, they are nearly impossible to identify as separate species, only when you hear their call can you separate the species. The Long-billed is much more common at Cheyenne Bottoms when compared to the Short-billed; but I still hesitate to break the species down into two species while conducting the survey, unless I hear their call. It is because of this that the International Shorebird Survey has a category listed simply as “dowitcher”. As such, I have lumped both species into one category and so the population trend and chronology are for both species.

### Area Status:

The Long-billed Dowitcher is a common migrant, one of the members of what I call the “Top Ten”, these being those shorebirds in which a significant portion of their population migrates through the Central Flyway. Early spring migrants can begin arriving at Cheyenne Bottoms in early February, but the peak of migration runs from mid-March into mid-May. The average first of the season observation date is around March 20<sup>th</sup>. The Short-billed Dowitcher can be classified as a rare migrant, with early spring migrants arriving in late March with the peak of migration running from mid-April into mid-May. The average first of the season observation date is around April 7<sup>th</sup>.

### High Count:

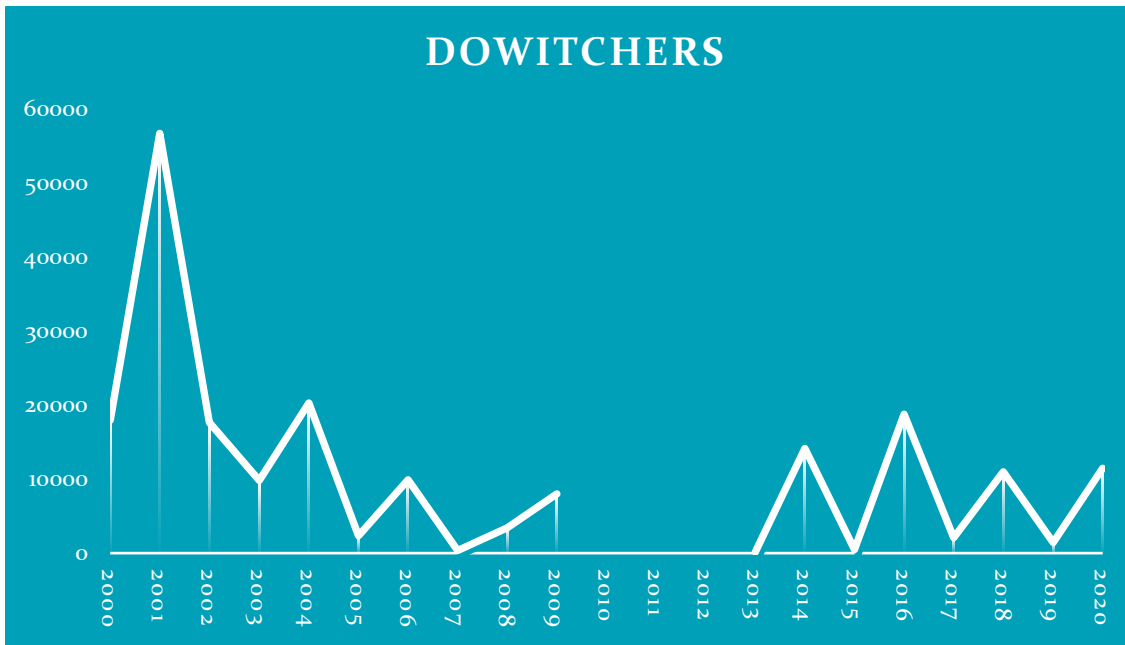
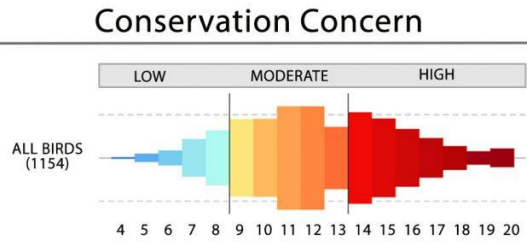
74,580 were recorded in May of 1982

Habitat: The preferred habitat for feeding is shallow water, averaging around two to three inches in depth. Exposed mudflats, shorelines and grassy marshes are also used, but the soil in which they are probing for food must be soft.

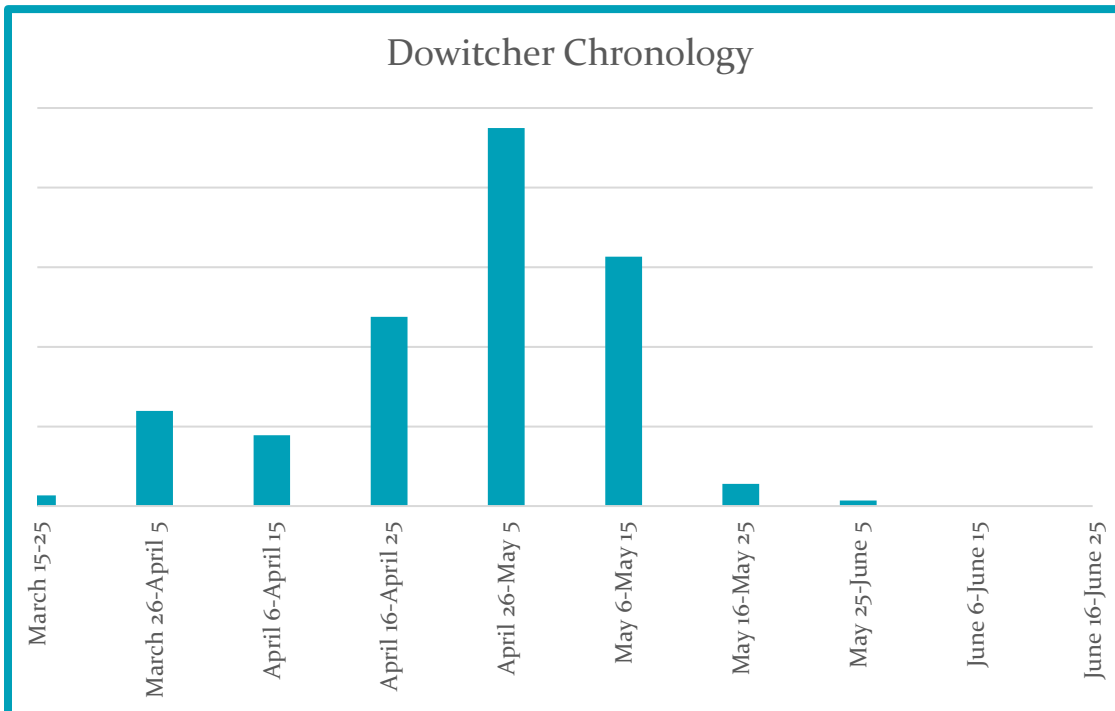
### Conservation Status:

Although the two species of dowitchers are notoriously similar in appearance. Their favored microhabitats in winter usually differ, with Short-bills occupying saltwater habitats near the coast, and Long-bills in freshwater habitats, often well inland. Climate models show a major shift of suitable winter climate for Short-billed Dowitchers, especially along the Gulf Coast, with only 13 percent of the current range remaining stable. At the same time, the species may expand inland in the Southwest, an area already occupied by wintering Long-billed Dowitchers. If wintering Short-bill Dowitchers can adapt to the region, it will be interesting to see how the two species interact. The Long-billed Dowitcher is still common and widespread. Over-hunting contributed to declines in the late 1800s and early 1900s, but protection from hunting has resulted in a rebound. Range-wide, the number of migrants has increased, and the breeding population has recently expanded into Siberia. It is not fully understood whether this is a shift from other nesting areas, or a true expansion. Habitat loss and environmental contaminants also threaten the current population of Long-billed Dowitchers.

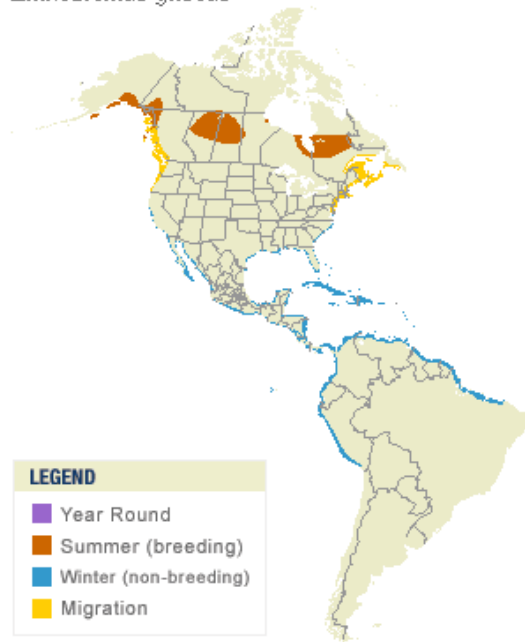
The Short-billed Dowitcher has a Conservation Concern Ranking of 14 and the Long-billed Dowitcher is 13.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012

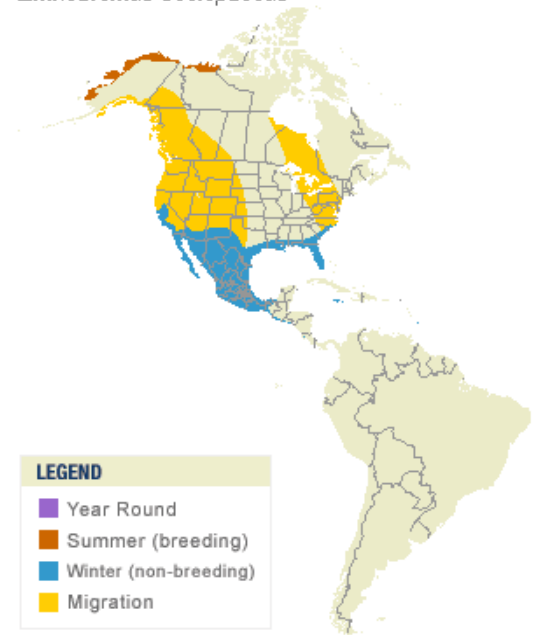


**Short-billed Dowitcher**  
*Limnodromus griseus*

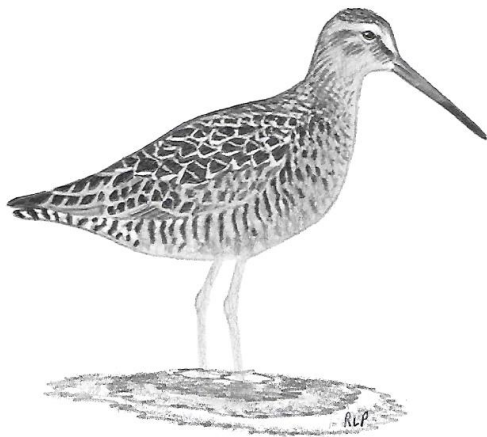


Map by Cornell Lab of Ornithology  
Range data by NatureServe

**Long-billed Dowitcher**  
*Limnodromus scolopaceus*



Map by Cornell Lab of Ornithology  
Range data by NatureServe



- The nest and eggs of the Short-billed Dowitcher eluded discovery until 1906, and even that information was overlooked for a long time because they were attributed to the Long-billed Dowitcher. The nesting grounds of the eastern race were not discovered until the late 1950s.
- Although both sexes share incubation of the eggs, only the male takes care of the young once they hatch.
- The oldest recorded Short-billed Dowitcher was at least 13 years, 11 months old when it was recaptured and rereleased during banding operations in Delaware.
- Most Siberian breeding Long-billed Dowitchers likely migrate to the Americas during the winter.
- The oldest recorded Long-billed Dowitcher was at least 8 years, 4 months old when it was shot in Kansas, the same state where it had been banded.

# Wilson's Snipe

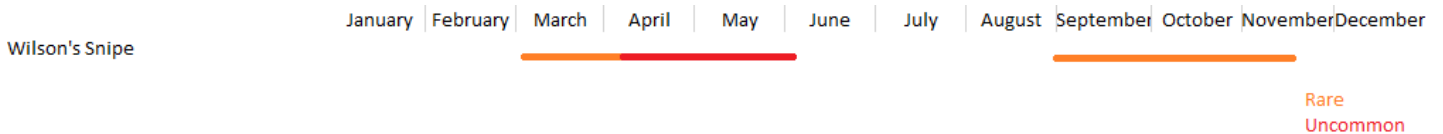
## *Gallinago delicata*



The Wilson's Snipe is a shorebird that most likely is under-recorded during the International Shorebird Survey. The survey follows a predetermined route along the available road system, so only birds seen from the road are recorded. The Wilson's Snipe is a somewhat secretive bird that usually is not out in the open. I usually see more while working in the grasslands on the preserve than I do when conducting the survey. It also appears to be somewhat of a boom or bust bird. Some years there are no snipe recorded during the survey and other years a few dozen, except for 1998 when 300 birds were recorded in one day. I sure wish I had been around for that event.

### Area Status:

The Wilson's Snipe is an uncommon migrant and very rare winter visitor. Spring migration begins in early March and runs into early June. The average first of the season observation date is around March 26<sup>th</sup>. This species has been seen every month of the year at Cheyenne Bottoms. In my experience, I have observed more birds in fall migration in wet meadows than I have during spring migration, while conducting the International Shorebird Survey.



### High Count:

300 were recorded in May of 1998.

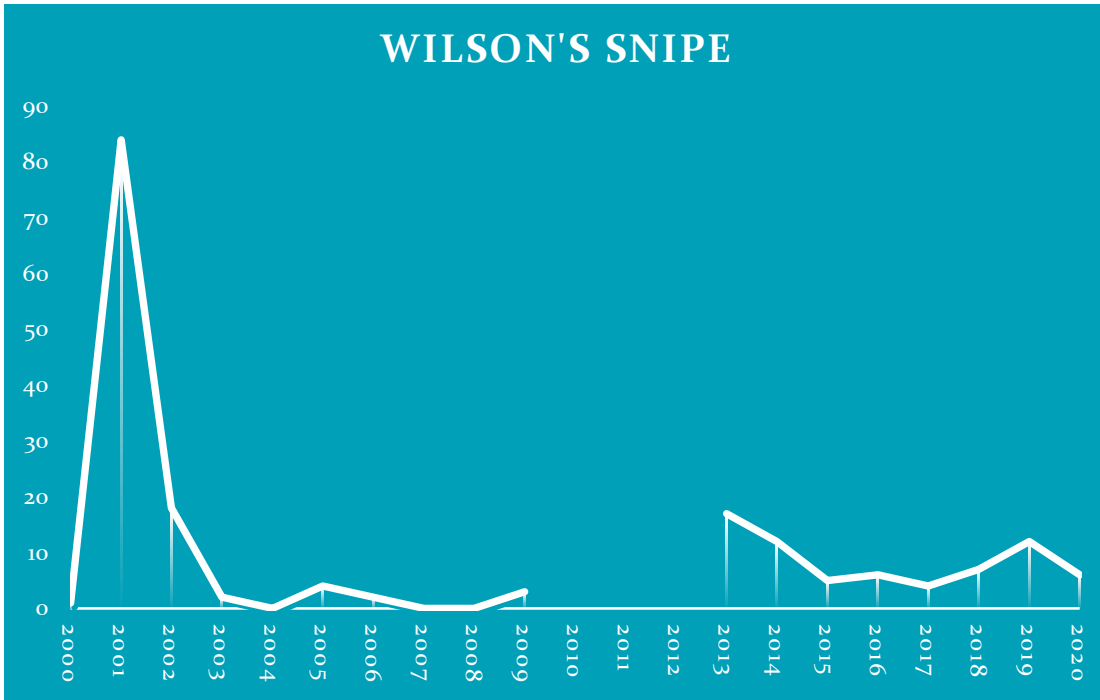
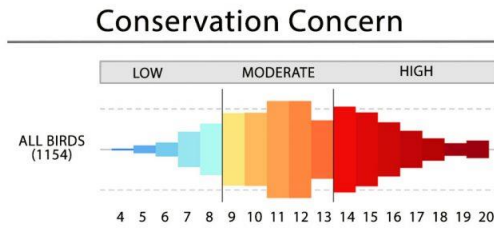
### Habitat:

The Wilson's Snipe prefers grassy marshes and wet meadows with dense vegetation. These birds make some use of very shallow water habitat, but typically do not venture far from thick, low vegetation into which they can disappear and hide from predators.

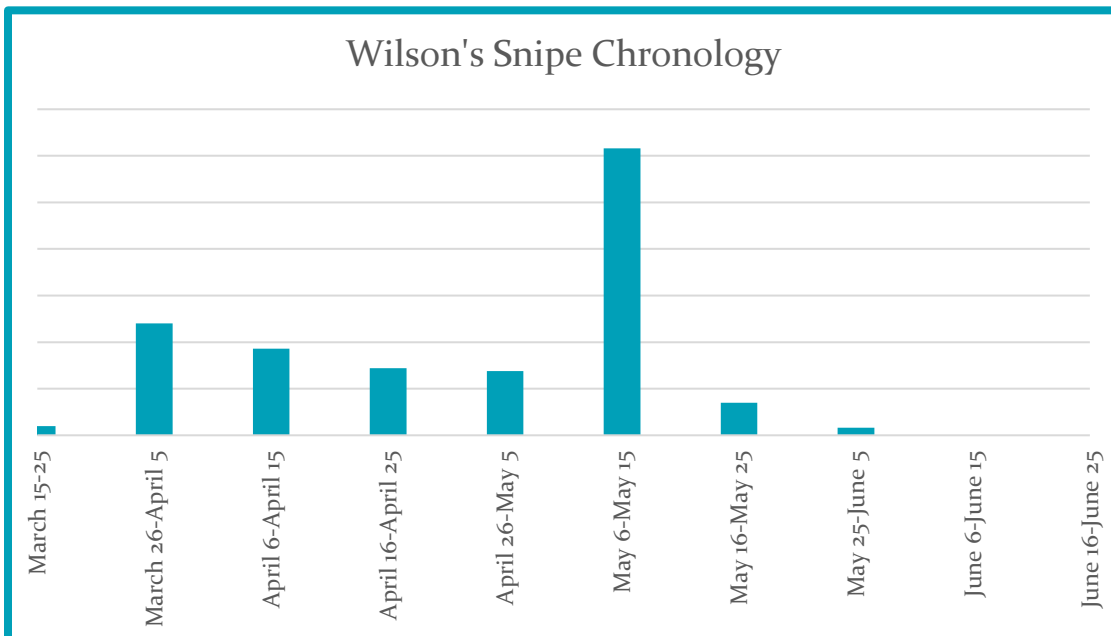
### Conservation Status:

The Wilson's Snipe is widespread and overall populations remained stable between 1966 and 2014, according to the North American Breeding Bird Survey. The global breeding population, which is shared between the U.S. and Canada, is estimated at 2 million individuals. Approximately 105,000 Wilson's Snipe were taken annually by hunters between 2006 and 2010 in the U.S. and Canada combined; this number was probably several times higher during the mid-twentieth century. Wilson's Snipe depend on wetlands and draining, or conversion of wetlands is detrimental to this species. Other threats include collisions with radio, TV, and cell towers, and buildings.

The Wilson's Snipe has a Conservation Concern Ranking of 10.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Wilson's Snipe  
*Gallinago delicata*



Map by Cornell Lab of Ornithology  
Range data by NatureServe



- Wilson's Snipe look stocky, thanks in part to the extra-large breast muscles that make up nearly a quarter of the bird's weight—the highest percent of all shorebirds. Thanks to their massive flight muscles, this chunky sandpiper can reach speeds estimated at 60 miles an hour.
- Wilson's Snipe feed by burying their bills deep into soft, wet soil to probe for insect larvae, worms, and other invertebrate prey. The bill's flexible tip can open to grasp food while the base of the bill stays closed. Snipe can slurp small prey from the mud without having to remove their bill from the soil.
- Because a Wilson's Snipe's eyes are set far back on its head, it can see almost as well behind, as in front and to the sides. This arrangement makes it difficult for a potential predator to sneak up on a feeding snipe—it almost literally has "eyes in the back of its head."
- Although only the female tends the eggs and nestlings, Wilson's Snipe parents split up the siblings once they're ready to fledge. The male takes the two oldest; the female takes the younger two with her. After they leave the nest the mates have no further contact.
- The oldest known Wilson's Snipe was at least 9 years, 3 months old, based on a band recovered from a bird that was shot in Newfoundland and Labrador, Canada.



# American Woodcock

*Scolopax minor*



The American Woodcock is an accidental visitor to Cheyenne Bottoms. I am only aware of a few sightings within the Bottoms and one additional sighting in Great Bend. Cheyenne Bottoms is west of their normal range and generally the habitat is not favorable for this shorebird. It was truly pure luck when I came across one in November of 2016. I was doing some noxious weed control on an ATV within the wooded area along the banks of Deception Creek when I drove right up next to a woodcock. He or she just looked up at me and I sat there for about a minute looking back at the bird. It slowly walked away, and I drove off to leave it in peace. I most likely will never forget that encounter.

## Area Status:

An accidental visitor to Cheyenne Bottoms. I know of only a few sightings, the latest was in November of 2016.

## High Count:

1 in November of 2016.

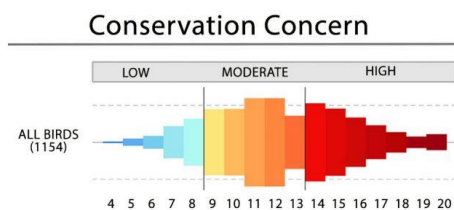
## Habitat:

An uncommon and secretive bird that prefers damp ground under dense cover in woods. It may be found in forests, forest edges, old fields and wet meadows of Eastern North America, including the eastern edge of Kansas.

## Conservation Status:

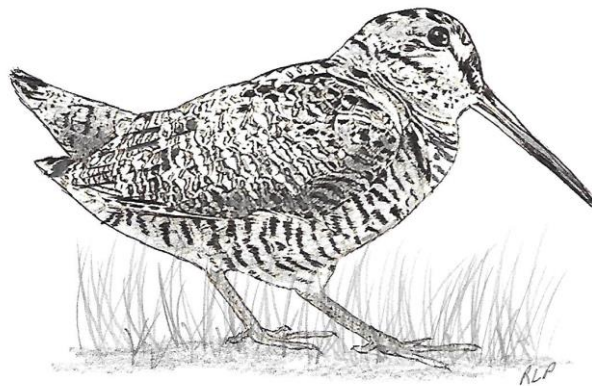
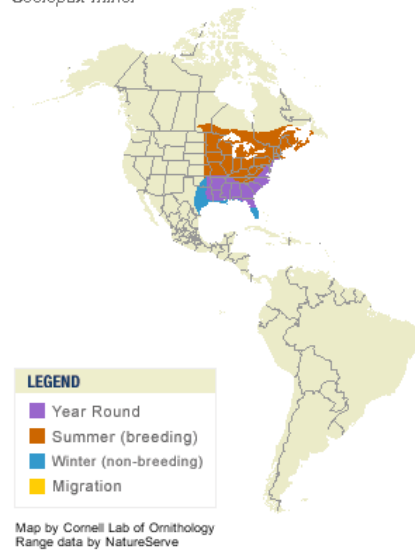
The American Woodcock is a highly terrestrial shorebird and nests in upland woods and thickets. Even in winter, it avoids aquatic habitats, again preferring areas with woody vegetation. Climate models show an overall increase and northward expansion of areas of suitable climate in winter. In summer, though, overall loss and northward movement of suitable climate space are forecast. Fortunately, the species responds well to aggressive habitat management by humans—an action that may be increasingly required on the breeding grounds in the decades to come.

The American Woodcock has a Conservation Concern Ranking of 13.





American Woodcock  
*Scolopax minor*



- The male woodcock's evening display flights are one of the magical natural sights of springtime in the East. He gives buzzy *peent* calls from a display area on the ground, then flies upward in a wide spiral. As he gets higher, his wings start to twitter. At a height of 200–350 feet the twittering becomes intermittent, and the bird starts to descend. He zigzags down, chirping as he goes, then lands silently (near a female, if she is present). Once on the ground, he resumes peenting and the display starts over again.
- American Woodcocks have large eyes positioned high and near the back of their skull. This arrangement lets them keep watch for danger in the sky while they have their heads down probing in the soil for food.
- The American Woodcock probes the soil with its bill to search for earthworms, using its flexible bill tip to capture prey. The bird walks slowly and sometimes rocks its body back and forth, stepping heavily with its front foot. This action may make worms move around in the soil, increasing their detectability.
- The woodcock is also known as the timber doodle, Labrador twister, night partridge, and bog sucker.
- The oldest American Woodcock on record was 11 years, 4 months old.

# Wilson's Phalarope

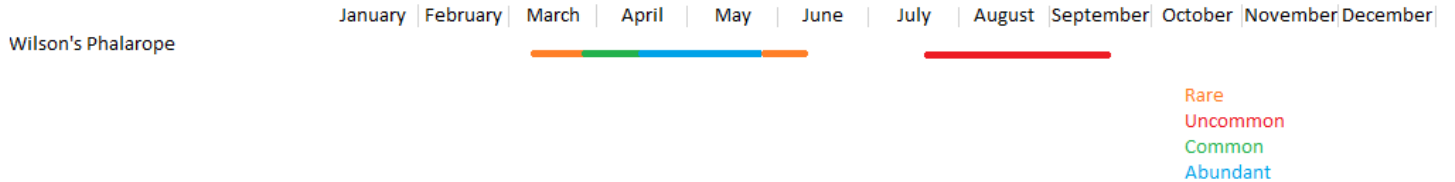
*Phalaropus tricolor*



Phalaropes are the only shorebirds that regularly swim in deep water. They bob on the surface, often spinning in circles to bring small food items within reach of their slender bills. In the breeding season females are more colorful than males, with a dark line through the eye extending down the neck.

## Area Status:

The Wilson's Phalarope is an abundant spring migrant and uncommon in the summer and fall. Early spring migrants begin arriving in mid-March with the peak of migration running from mid-April to late-May. The average first of the season observation is around April 12<sup>th</sup>.



## High Count:

43,905 were recorded in May of 1985.

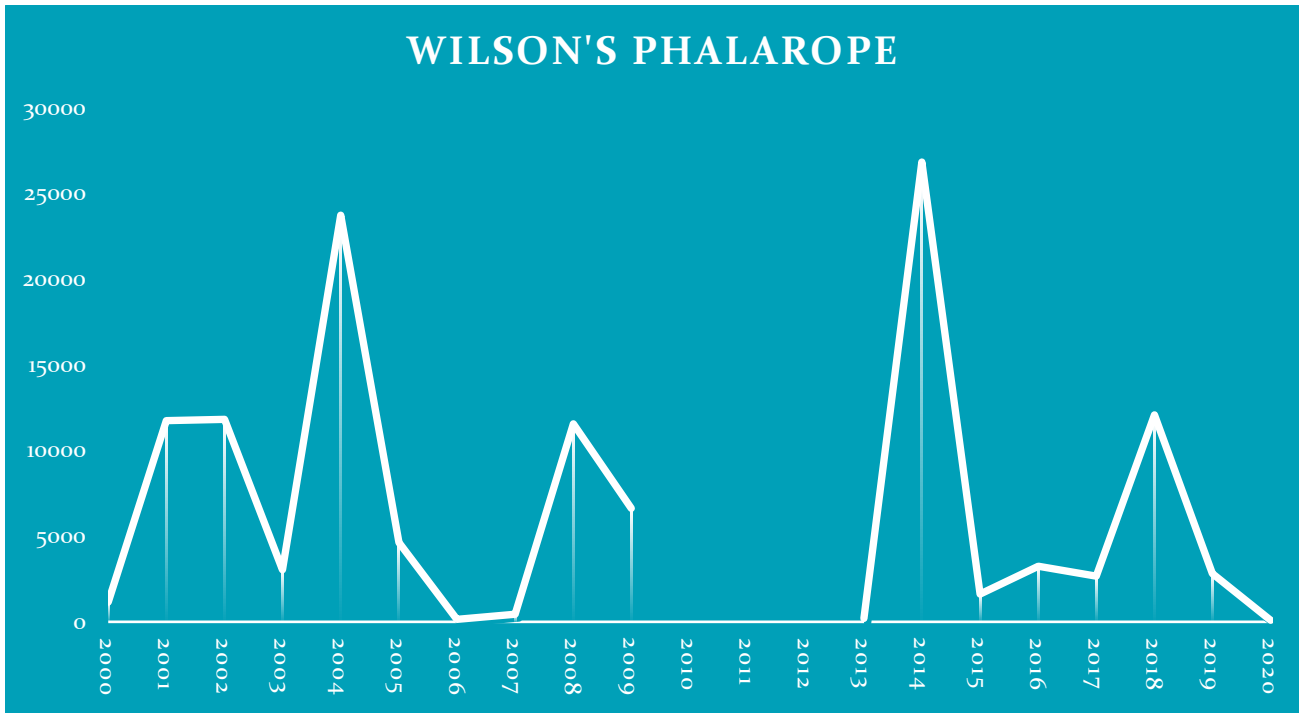
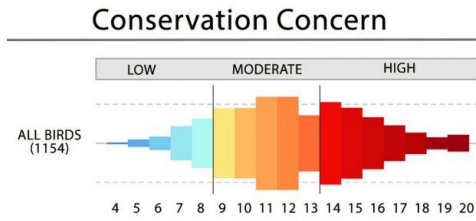
## Habitat:

This species prefers to feed in shallow open water with an average depth of one to four inches; but will also forage on wet mudflats. While foraging in the water, they often spin in circles to create a whirlpool that sucks up food items to the surface of the water. Other techniques include chasing and pecking prey from the surface of mud or water, standing still and stabbing at passing flies, and probing inside mud.

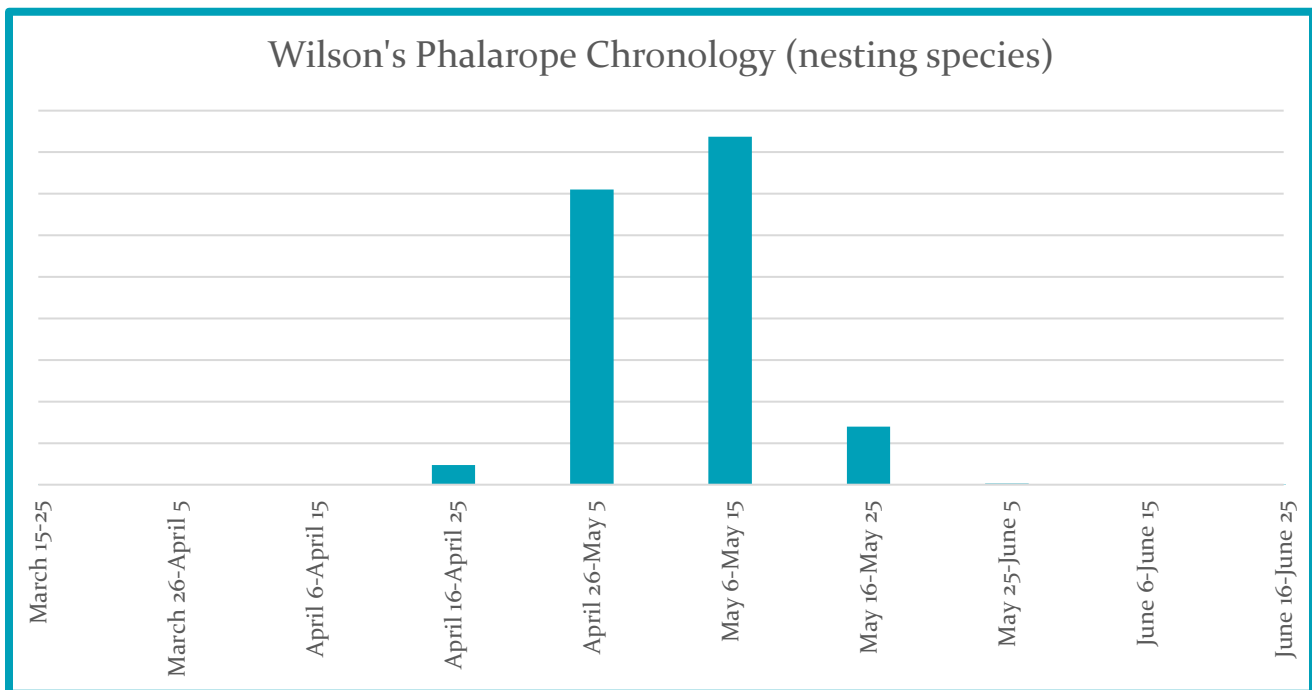
## Conservation Status:

This colorful shorebird probably isn't on most people's conservation radar, as it is generally common—even locally abundant—within its range. However, climate models suggest that the Wilson's Phalarope may be in serious trouble. The model forecasts a distressing 100 percent loss of current range by 2080, across areas of suitable climate for breeding—basically, wetlands in the Great Plains and Intermountain West. The news may be even worse: the species depends critically on highly saline large lakes (Mono Lake, Great Salt Lake, etc.) for its mid-summer molt, and such habitats are widely thought to be already deteriorating because of climate change.

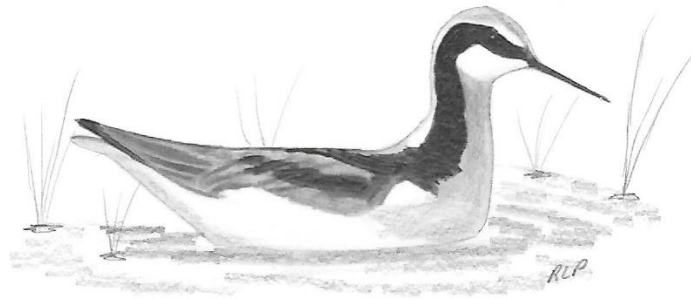
The Wilson's Phalarope has a Conservation Concern Ranking of 12.



The International Shorebird Survey was not conducted in 2010, 2011, and 2012



Wilson's Phalarope  
*Phalaropus tricolor*



- Unlike most birds where the female has the predominant role in caring for young, female phalaropes desert their mates once they've laid eggs. While the male raises the young by himself, the female looks for other males to mate with. This unusual mating system is called polyandry, and it's reflected in the way the two sexes look, with the females more brightly colored than the males.
- Wilson's Phalaropes are one of only two species of shorebirds that molt at resting sites on the migration pathway, rather than on the breeding grounds before leaving or on the wintering grounds.
- While stopping over to molt on salty lakes in the West, Wilson's Phalaropes usually eat so much that they double their body weight. Sometimes they get so fat that they cannot even fly, allowing researchers to catch them by hand.
- Wilson's Phalaropes almost always lay a clutch of exactly four eggs.

# Red-necked Phalarope

*Phalaropus lobatus*



### Area Status:

This phalarope is a rare migrant with most years having no birds recorded at Cheyenne Bottoms during the International Shorebird Survey. The recorded observations are too low in number to determine an approximated arrival date or peak migration. Most observations during the survey are between April 25<sup>th</sup> to May 28<sup>th</sup>.

### High Count:

532 were recorded in May of 1982.

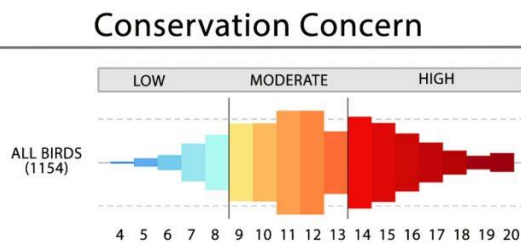
### Habitat:

Unlike other sandpipers, phalaropes forage mostly while swimming, by picking items from water's surface or just below it. They often spin in circles on shallow water, probably to stir things up and bring food closer to surface. In general, they feed very rapidly on very small prey.

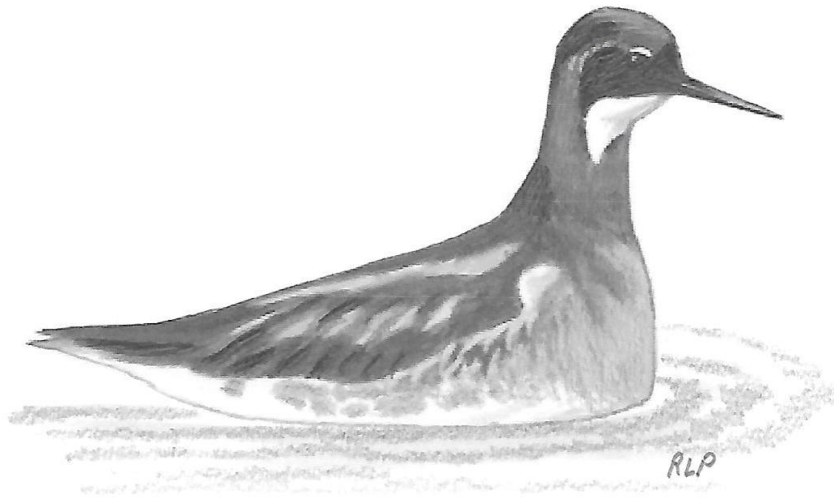
### Conservation Status:

The population is difficult to monitor; there is some evidence of recent declines in some areas, such as off the coast of New England. Most alarming is the disappearance of former concentrations in the western Bay of Fundy. Fall gatherings there had been estimated as high as 3 million in the 1970s, but numbers began to drop sharply in the 1980s and the concentrations have largely disappeared.

The Red-necked Phalarope has a Conservation Concern Ranking of 12.



Phalaropes reverse the usual sex roles in birds: Females are larger and more colorful than males; females take the lead in courtship, and males are left to incubate the eggs and care for the young. Red-necked Phalaropes nest around arctic tundra pools and winter at sea. During migration, they pause on shallow ponds in the west, where they spin in circles, picking at the water's surface. However, most apparently migrate offshore, especially in the east. Despite their small size and delicate shape, they seem perfectly at home on the open ocean.



# Red Phalarope

*Phalaropus fulicarius*



### Area Status:

The Red Phalarope is a very rare migrant with none recorded during the International Shorebird Survey. However, there have been observations of this species at other times. It migrates mostly offshore; rarely seen inland south of breeding grounds. A few winter off the North American coast, but most apparently are well south of the equator in winter. The few recorded sightings for this species are during the months of April, May and September, with six reported in September of 1984.

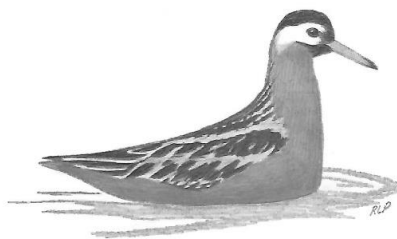
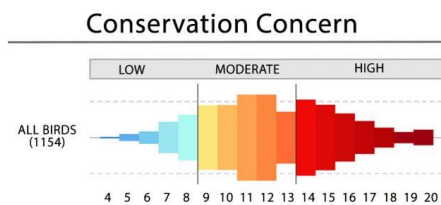
### Habitat:

All three species of phalaropes forage mostly while swimming, by picking items from the water's surface or just below it. They will spin in circles on shallow water, to stir things up and bring food closer to the surface. In general, they feed very rapidly on very small prey. At sea, they may land on mats of floating seaweed, and may pick parasites from the backs of whales. On breeding grounds, they also forage while walking or wading, and flutter up to catch insects in the air. For most of year this species is found only out at sea, often very far from land. It favors areas with upwellings or tide rips, or where warm and cold currents converge; they may regularly associate with whales. In summer, they nest on low-lying wet tundra near the coast in the high Arctic.

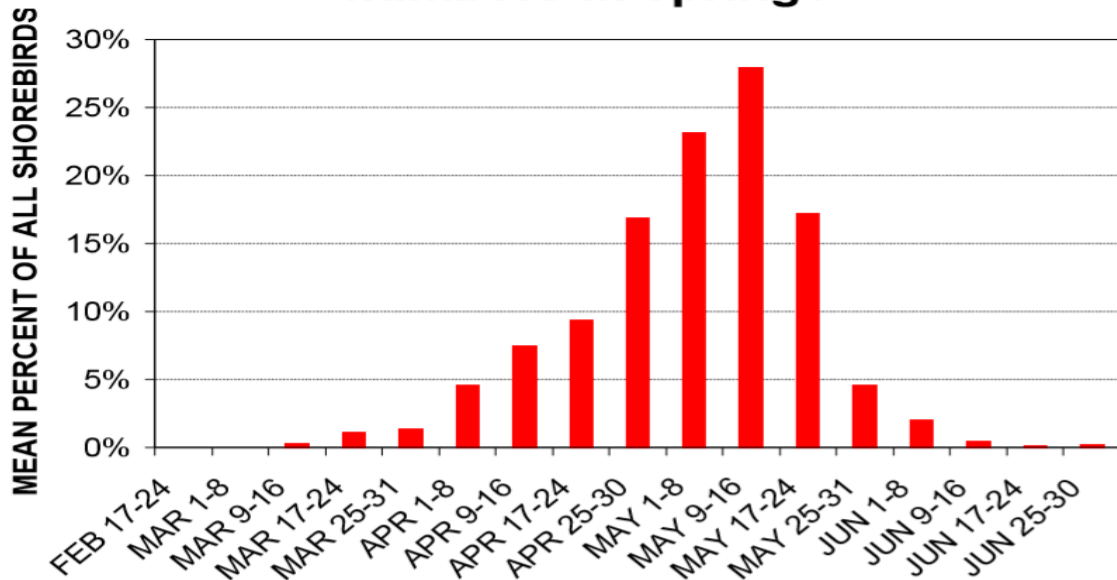
### Conservation Status:

The population is difficult to track, but populations are thought to have declined recently. Breeding areas in the high Arctic are vulnerable to effects of climate change, while changes in ocean conditions could cause problems for the birds wintering at sea.

The Red Phalarope has a Conservation Concern Ranking of 11.

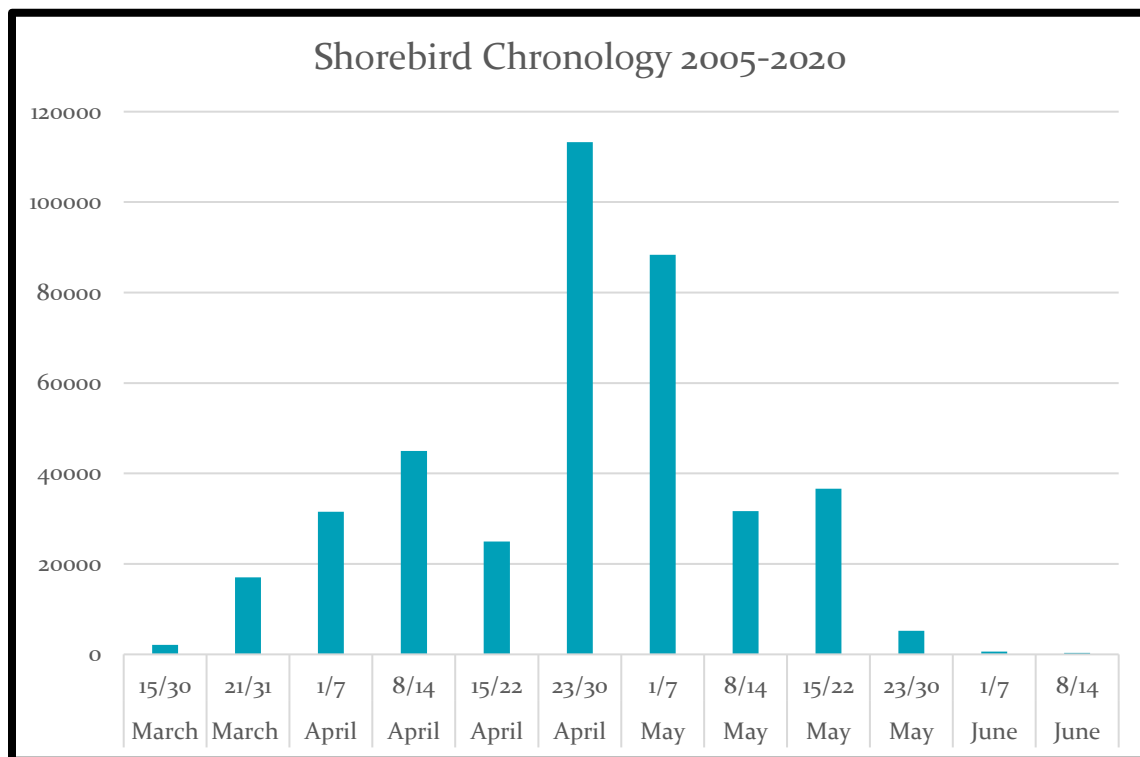


## When do shorebirds typically reach their peak numbers in spring?



On average, peak shorebird numbers in spring occur during the second week of May, with the first week of May a close second. However, migration chronology can vary from year to year.

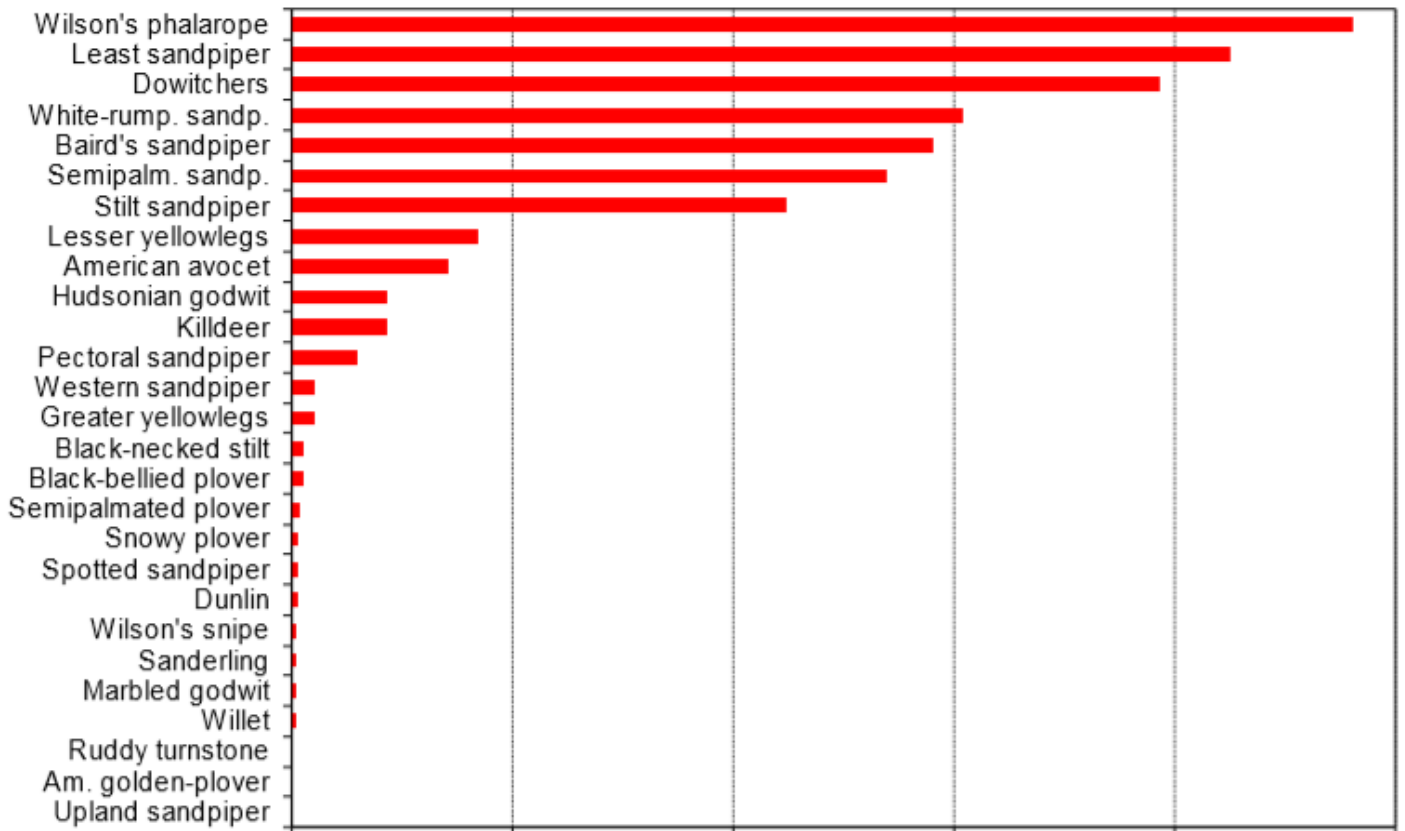
Above data from 1980 to 2005



Recent data exhibits a shift in chronology with shorebirds arriving a week or more earlier

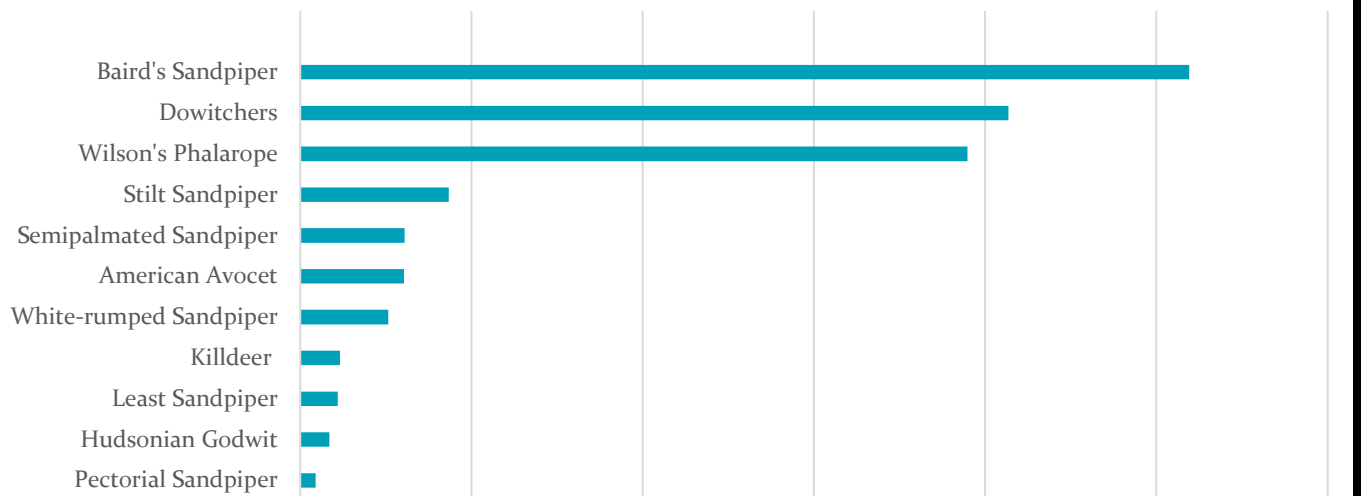


# What are the most common shorebird species in spring?



Above data from 1980 to 2005

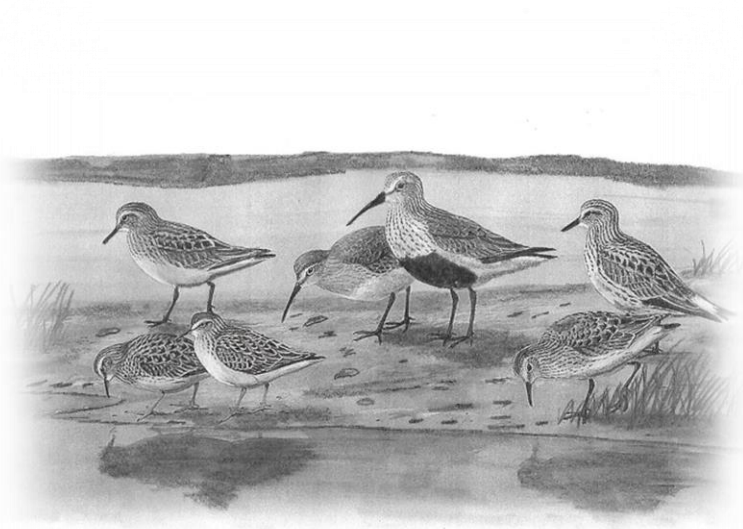
## Most Common Shorebirds Species in Spring (2005-2020)



Shorebirds concentrate at sites where food production is high enough to give them the energy they need for the next leg of their migration. It is this inclination for significant proportions of a whole population to congregate at a single site that makes them vulnerable; this flies in the face of the abundance of a species and its immunity to extinction. Usually, enough individuals of an abundant species would never gather in a single place, thus putting the species at risk. The shorebirds' tendency to gather at food-rich sites removes this strategy against extinction. These staging areas can condense species in such great numbers that the whole population can be vulnerable to local threats.

There are a number of factors that are responsible for declining shorebird populations, but wetland loss has affected shorebirds the greatest. At staging areas during migration, shorebirds use food resources to the limit. Simply, the loss of wetlands has meant fewer shorebirds. It may even be that the shorebirds' strategy of concentrating in huge numbers at staging areas is a relatively new behavior, forced upon them by a declining list of suitable sites. This was evident one extremely wet year, when the numbers of shorebirds visiting Cheyenne Bottoms was down, because the fields and pastures within the region were flooded, giving the shorebirds the opportunity to spread out across the landscape; yet these types of years are few and far between.

Conservation of shorebirds depends on the protection of their special habitats, principally wetlands, but for a few species, large expanses of grasslands. Shorebirds rely on these habitats to meet their high energy demand for a successful annual cycle. Shorebirds not only concentrate at particular sites like Cheyenne Bottoms, they also utilize a series of sites in completing their transhemispheric migration. In order to protect shorebird populations, it is insufficient to protect just one or even two sites along the shorebirds' migratory pathway and neglect the others. Each is an important link in the chain and when one link is dry or gone, the other links become even more important.



*Cheyenne Bottoms, Kansas*