



# The Shorebirds of Cheyenne Bottoms

## A Summary of the International Shorebird Survey

Robert L. Penner II

I decided to put together this document for a couple of reasons: First, it serves as a report of the findings of the International Shorebird Survey that has been conducted at Cheyenne Bottoms since 1980. Second, it is hoped that some readers will find it useful when they are trying to decide when the best time would be to come visit Cheyenne Bottoms in search of a certain species of shorebird and it is simply a way for me to express my interest in shorebirds and my concern for their future.

The species photos are from my good friend Bob Gress and borrowed from the "Birds in Focus" website with Bob's permission.

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

The daily high count was gathered from the records from the International Shorebird Survey, it should be noted that they are records that contain high numbers from other sources, but I chose to use only the records from the survey.

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

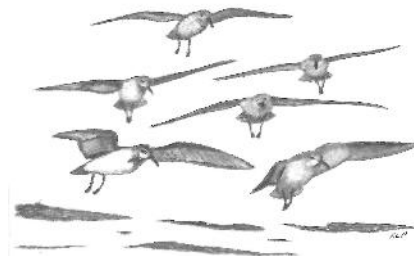
The section on conservation status comes from four different sources: Audubon's "Climate Report" and The Cornell Lab of Ornithology's "All About Birds" website. Also from the "State of the Birds" and the "Watch List" reports which are compiled by the U.S. Committee of the North American Bird Conservation Initiative (NABCI), a 23-member partnership of government agencies and conservation groups.

The population trend graph and the chronology graph represent the findings from the International Shorebird Survey that started in the 70's, but I am using data starting in 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. On average, a total of ten survey days take place every spring. However, for unknown reasons this survey methodology was not followed in the 80's and early 90's. Instead of ten survey days, some years there were seventeen or even twenty survey days and in some cases the survey was conducted one day and then again, the very next day. This resulted in over estimating of the numbers. I tried to compensate for that by grouping the survey dates into ten-day time periods and then taking the mean number for that period to be used in the population trend graph. I also tried to remove those survey dates that were in sequence. However, in some cases it still results in some very high numbers. There might have also been some surveyor bias and the shorebird populations for several species were higher in those years when compared to the present as many species have shown population declines.

The range map and interesting facts was taken from The Cornell Lab of Ornithology's "All About Birds" website.

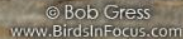
And finally the drawings were done by me.

Robert L. Penner II



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*Pluvialis squatarola*



Area Status:

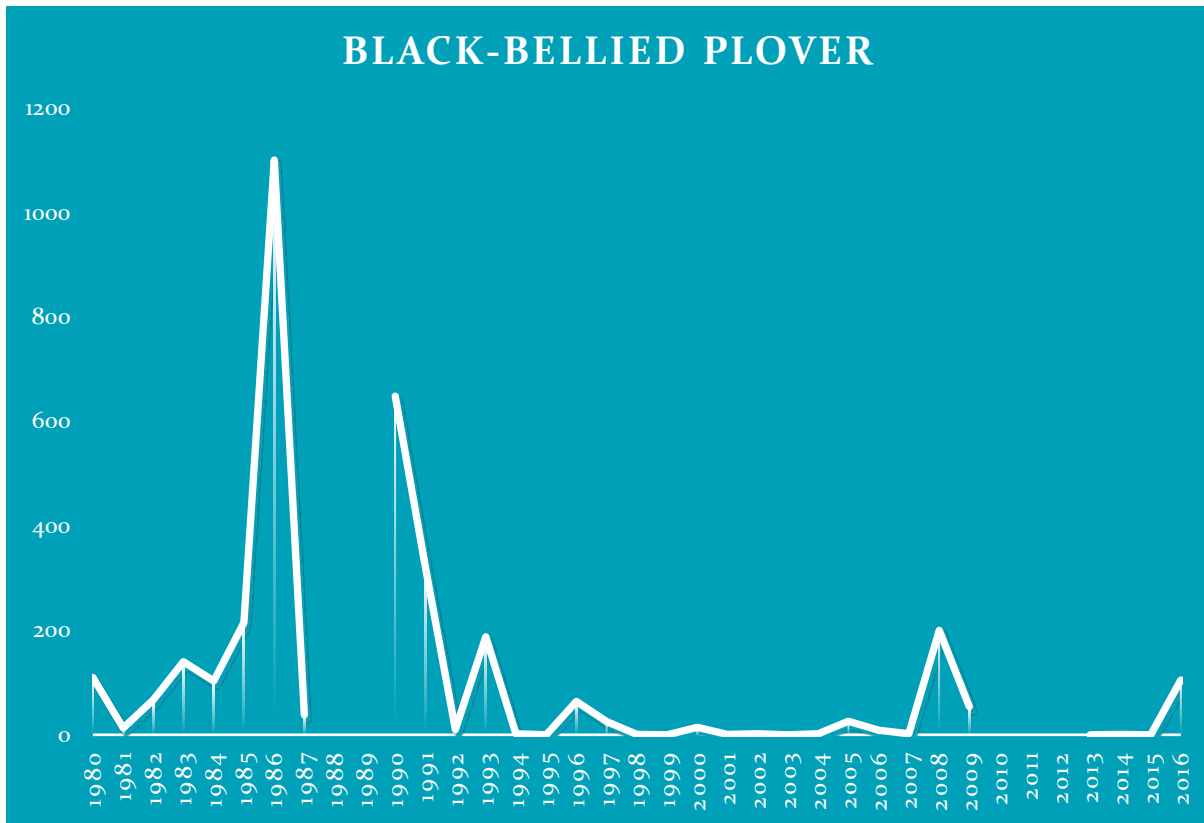
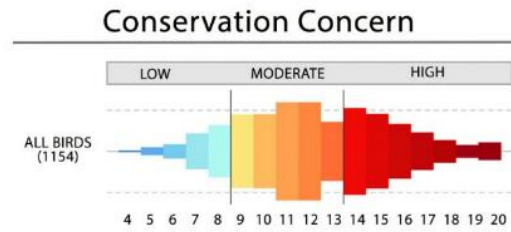
Rare  
Uncommon

855 were recorded in May of 1986.

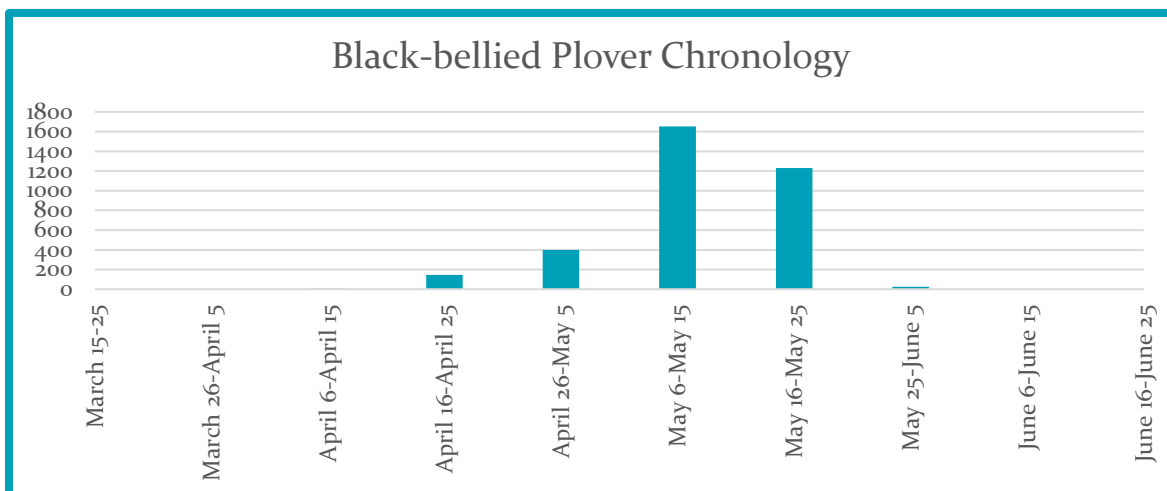
Usually found on the exposed mudflats along the large pools and in wet meadows; sometimes in the low growing grasslands and plowed fields surrounding the wetlands. This plover is a terrestrial and aquatic gleaner which means it prefers to feed in dry to slightly saturated areas with vegetation that is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

## PAGE 3

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



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012. In addition, the survey protocol during the 80's was slightly different than what is used today. The survey dates were more frequent than the standard every ten days that is currently used, thus the numbers might be slightly inflated due to double counting when survey days were too close together.



**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.

***Pluvialis dominica***



Area Status:

American Golden-Plover

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

Uncommon

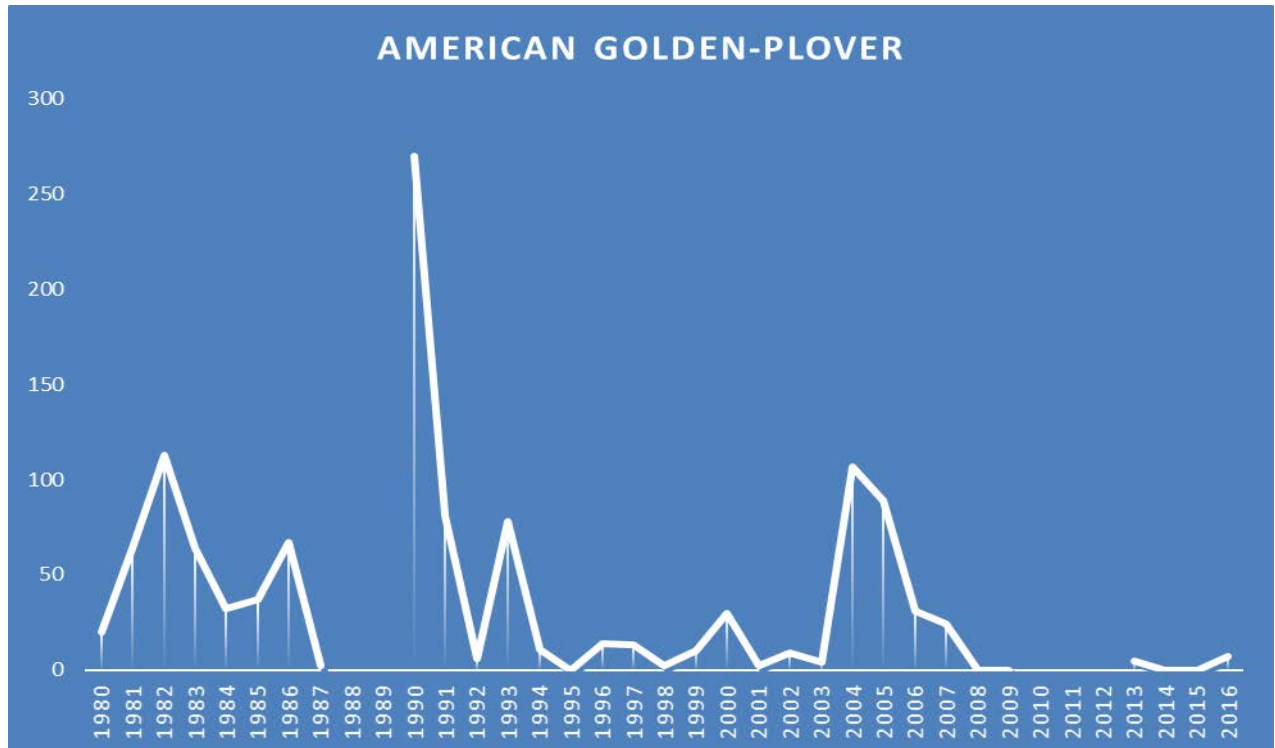
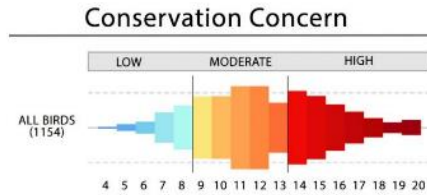
550 were recorded in September of 1981.

**Conservation Status:**

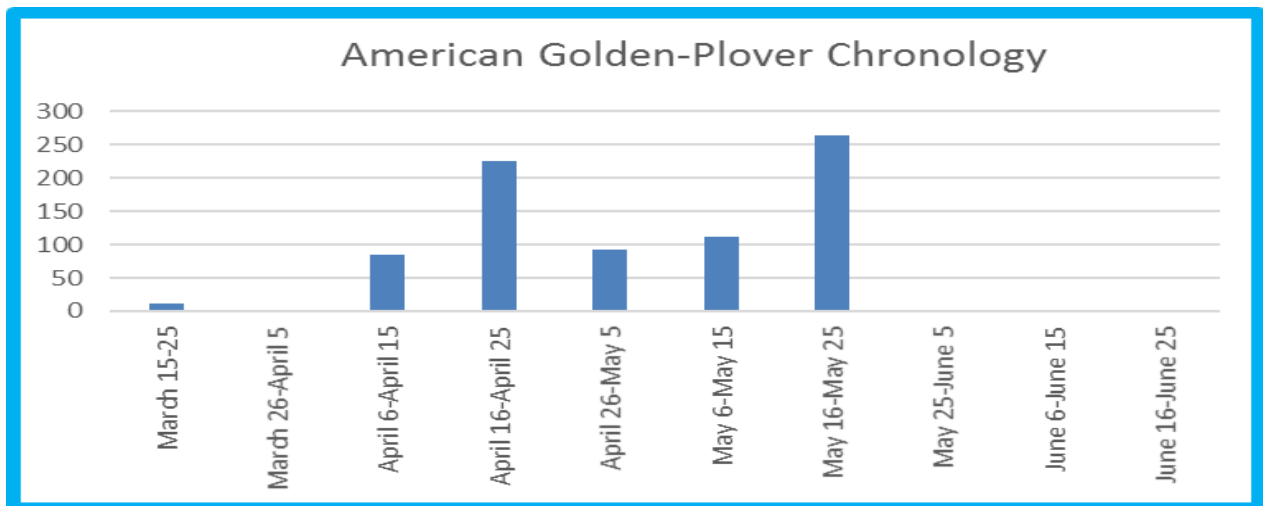
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The American Golden-Plover has a Conservation Concern Ranking of 13

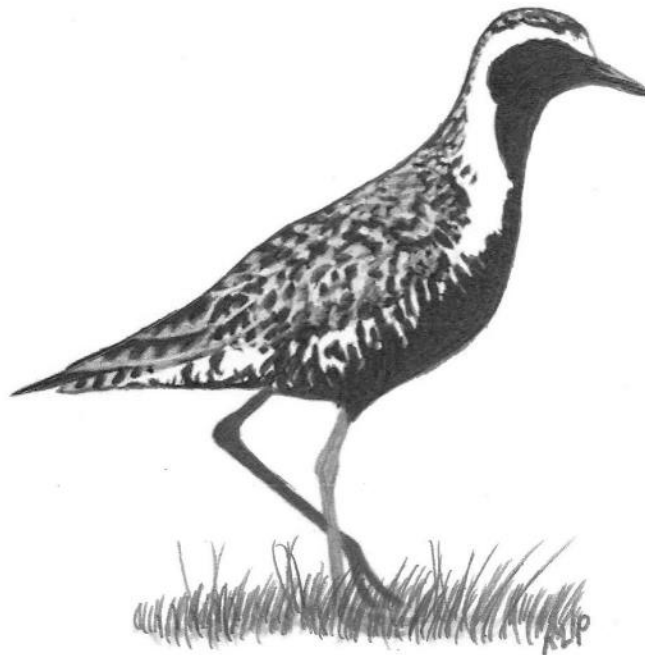
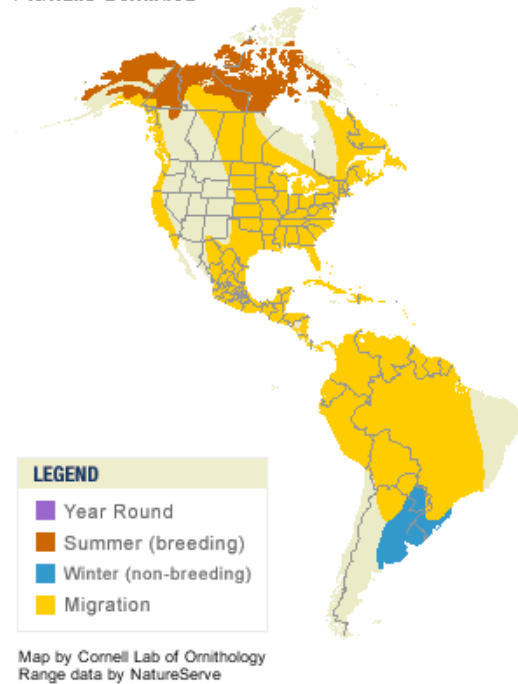


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American Golden-Plover  
*Pluvialis dominica*



- 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

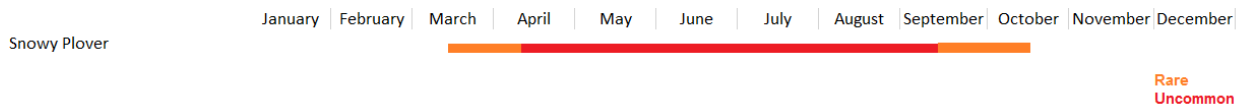
## *Charadrius nivosus*



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 on 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.

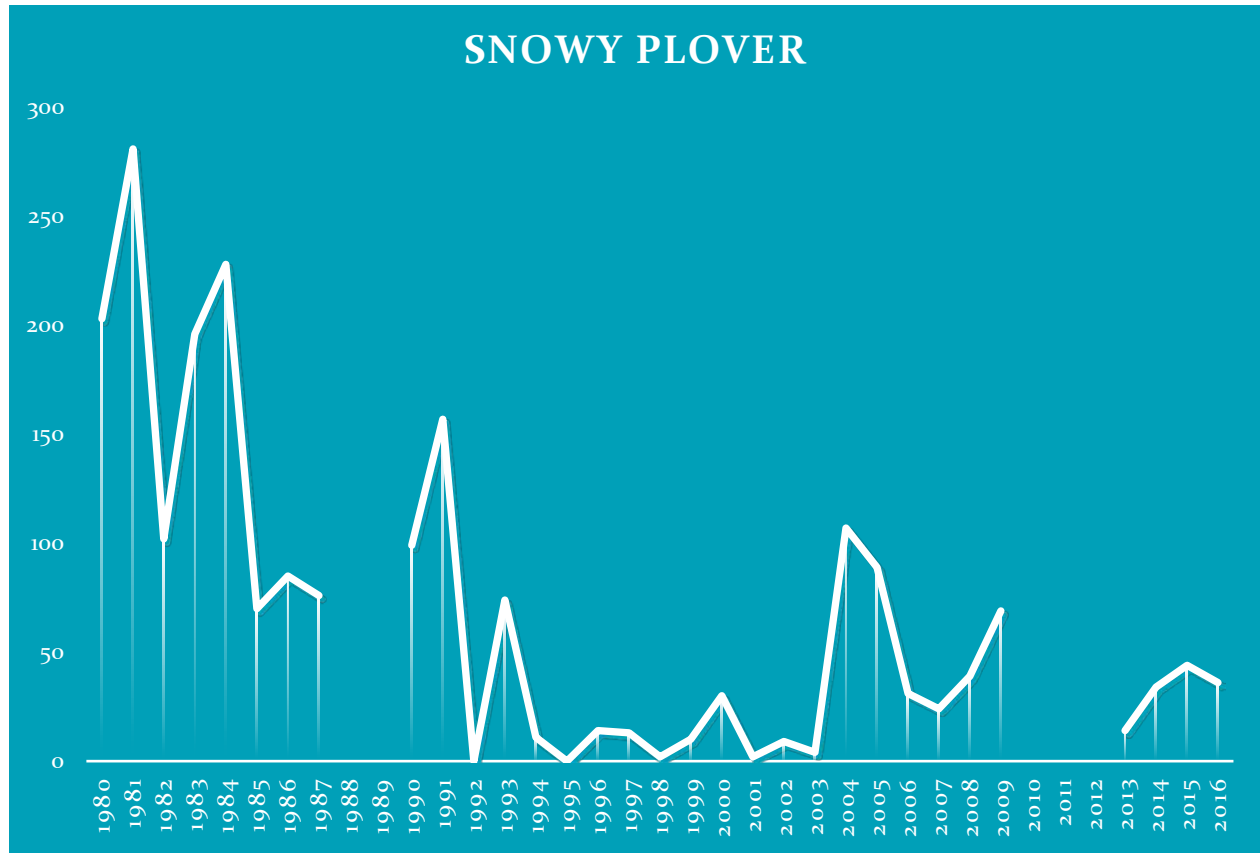
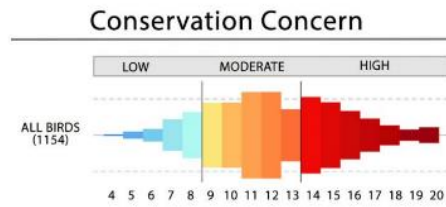
### Habitat:

This plover is mostly a terrestrial feeder that prefer 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 a ½” in depth.

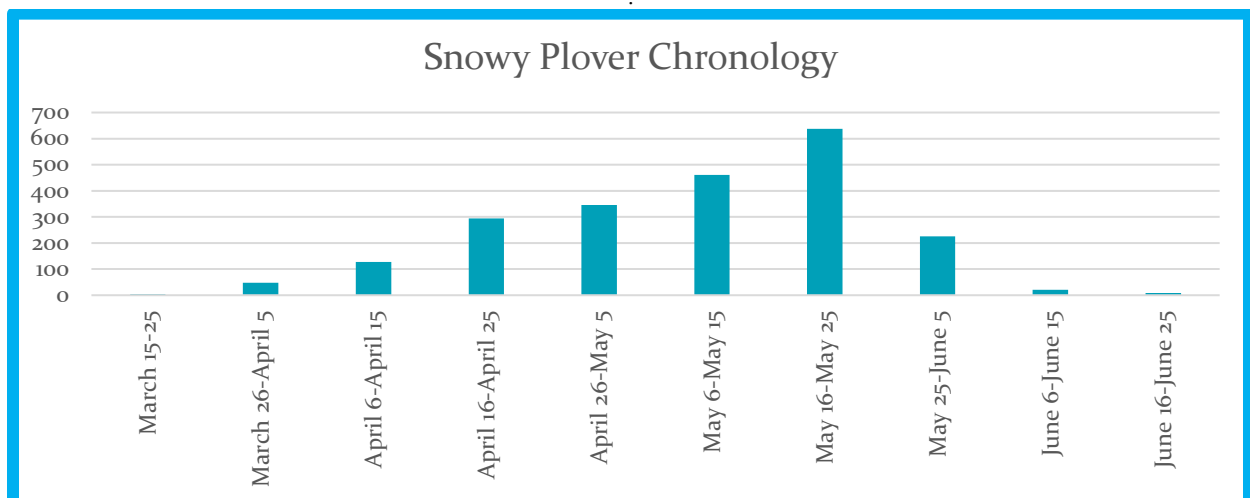
### Conservation Status:

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, forecasts a 56 percent loss of current range by 2080, with potential expansion inland and northward of such areas. Whether ideal habitat; 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.

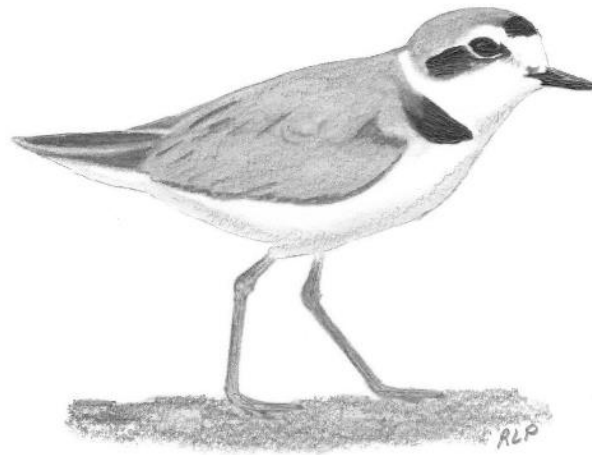
The Snowy Plover has a Conservation Concern Ranking of 15



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**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 male.

*Charadrius semipalmatus*



Area Status:

Semipalmated Plover

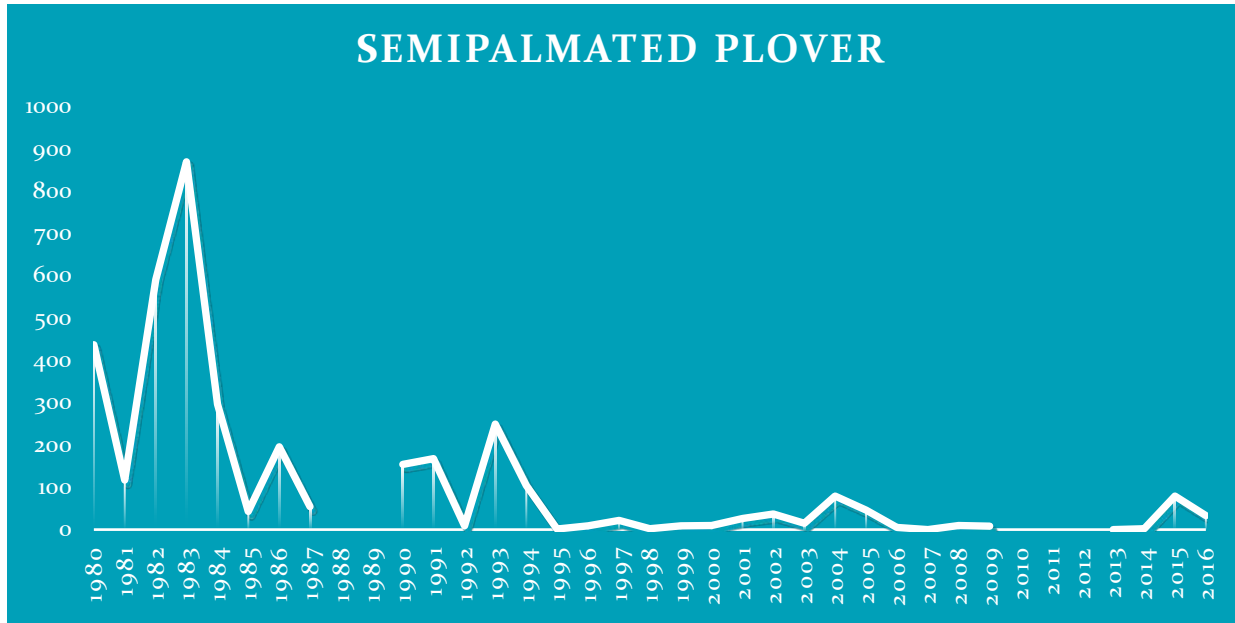
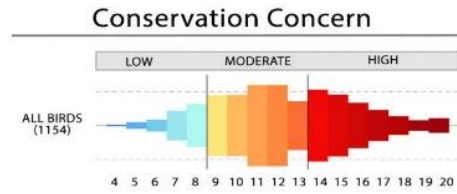
Rare  
Common  
Uncommon

471 were recorded in May of 1983.

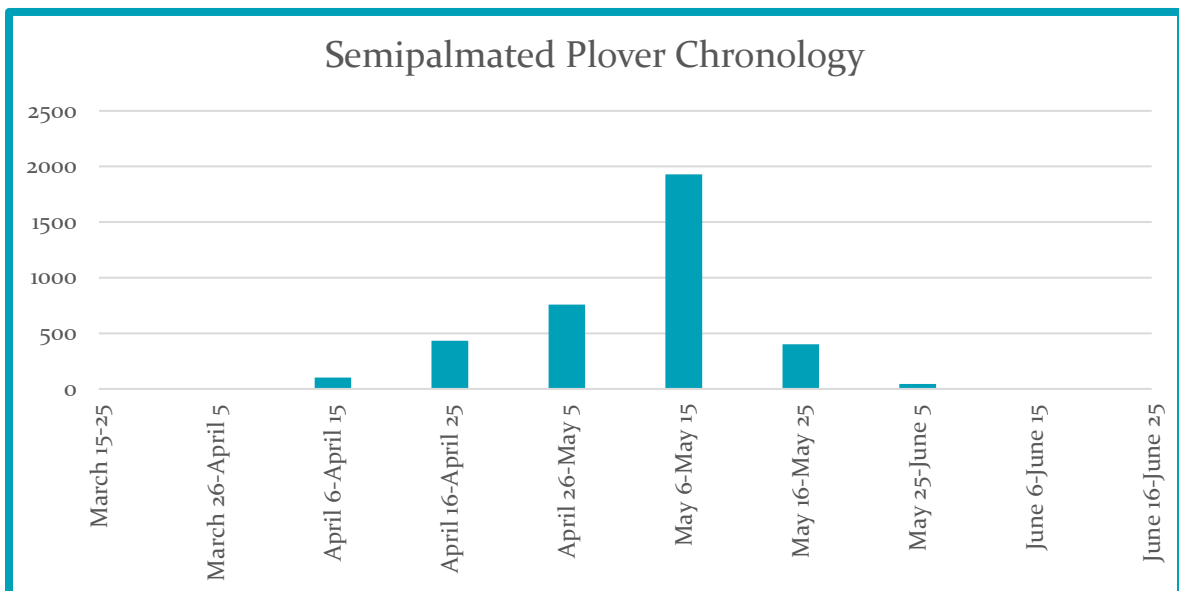
Like the other plovers that visit Cheyenne Bottoms, the Semipalmated Plover uses habitats that consist of open areas such as gravelly, sandy or muddy shorelines as well as wet and dry mudflats and usually in water with depths less than 1 inch.

## PAGE 12

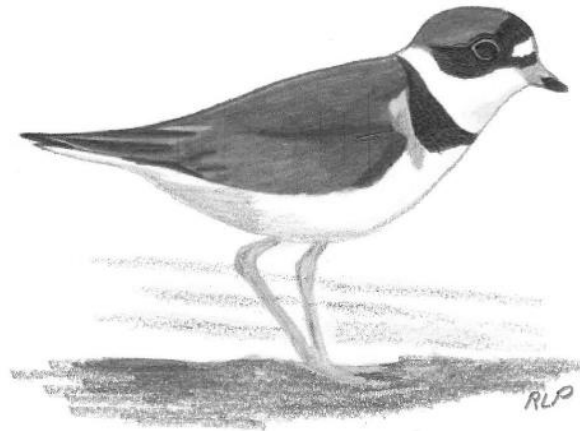
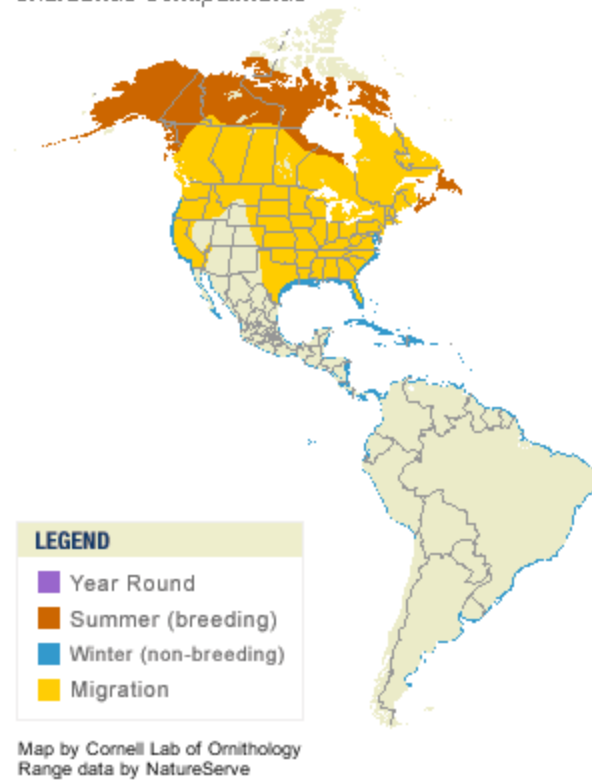
The Semipalmated Plover has a Conservation Concern Ranking of 10.



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**Semipalmated Plover**  
*Charadrius semipalmatus*



- 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 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 26<sup>th</sup>.



#### High Count:

100 were recorded in May of 2005.

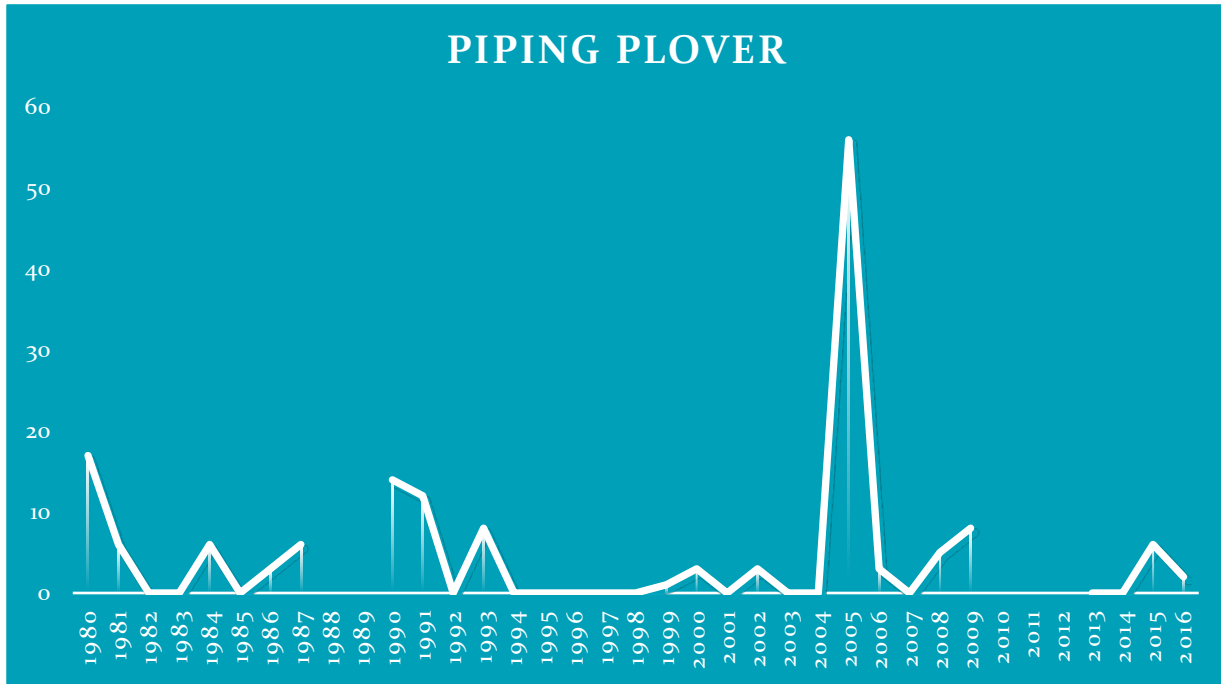
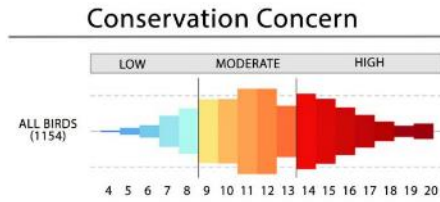
#### Habitat:

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 a 1/2 inch in depth.

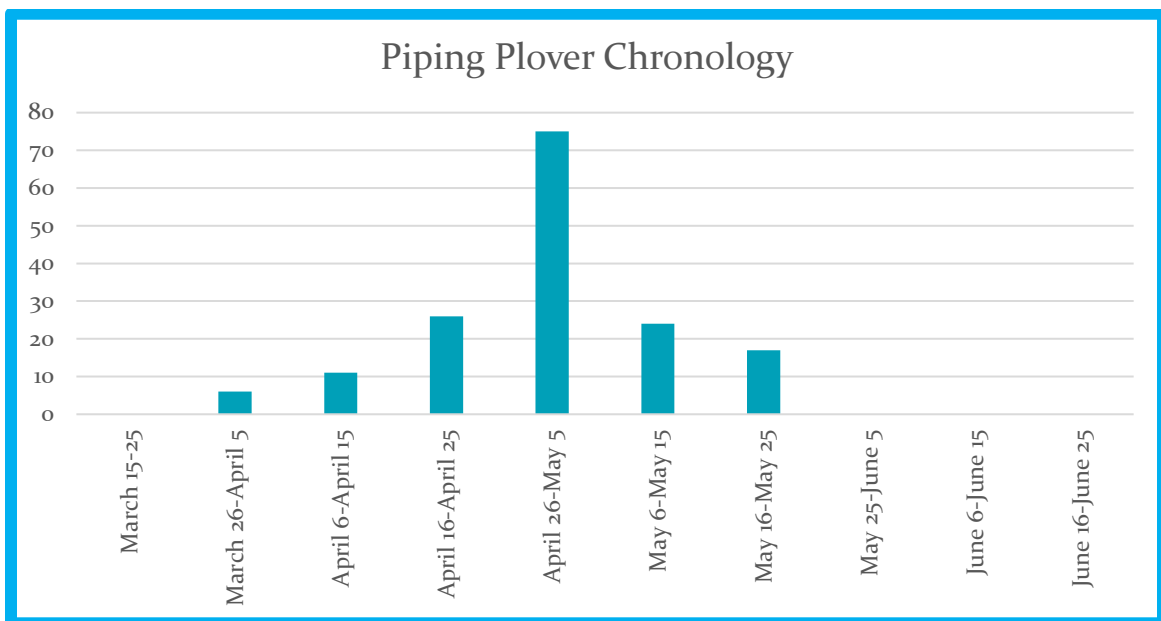
#### Conservation Status:

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 non-breeding range by 2080, with only 38 percent of its original summer range remaining, this is 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, excluding mammalian predators with fences (sometimes electric) and predator control, implementing appropriate water level regulation policies, a variety of techniques to control vegetation, addition of gravel, and in some cases, nest translocation 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. Adult birds may be more vulnerable to predation within exclosures depending on local predators and the exclosure size and materials used. Adults may also abandon exclosed nests more frequently. Management techniques are being assessed and refined and in some cases, activities aimed at increasing nest success have been successful.

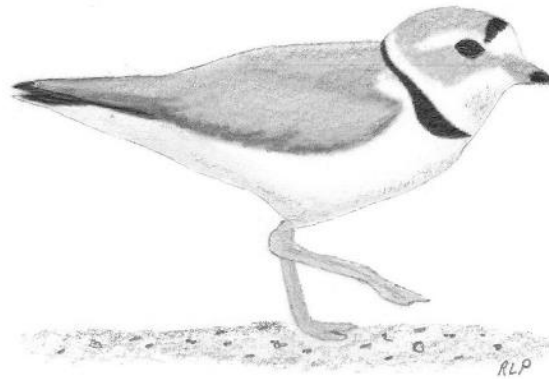
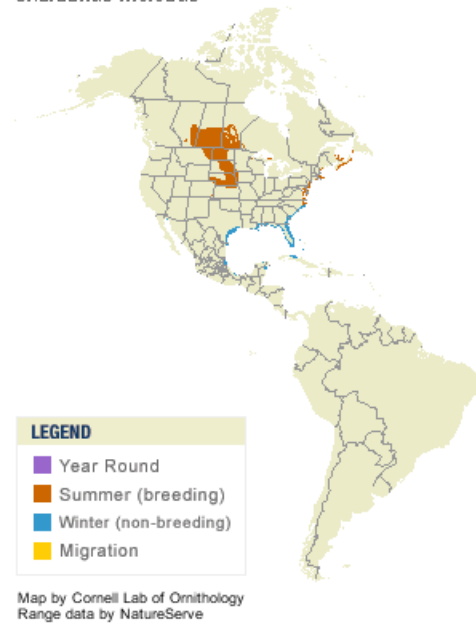
The Piping Plover has a Conservation Concern Ranking of 15



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Piping Plover  
*Charadrius melodus*



- 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

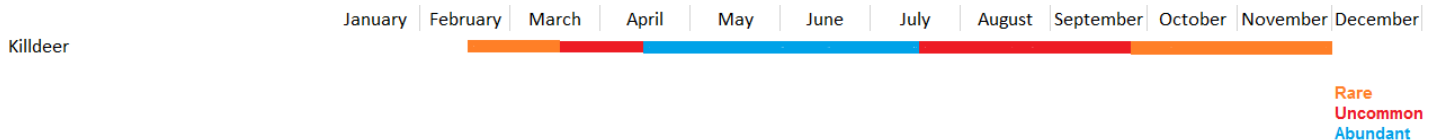
## *Charadrius vociferous*



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.

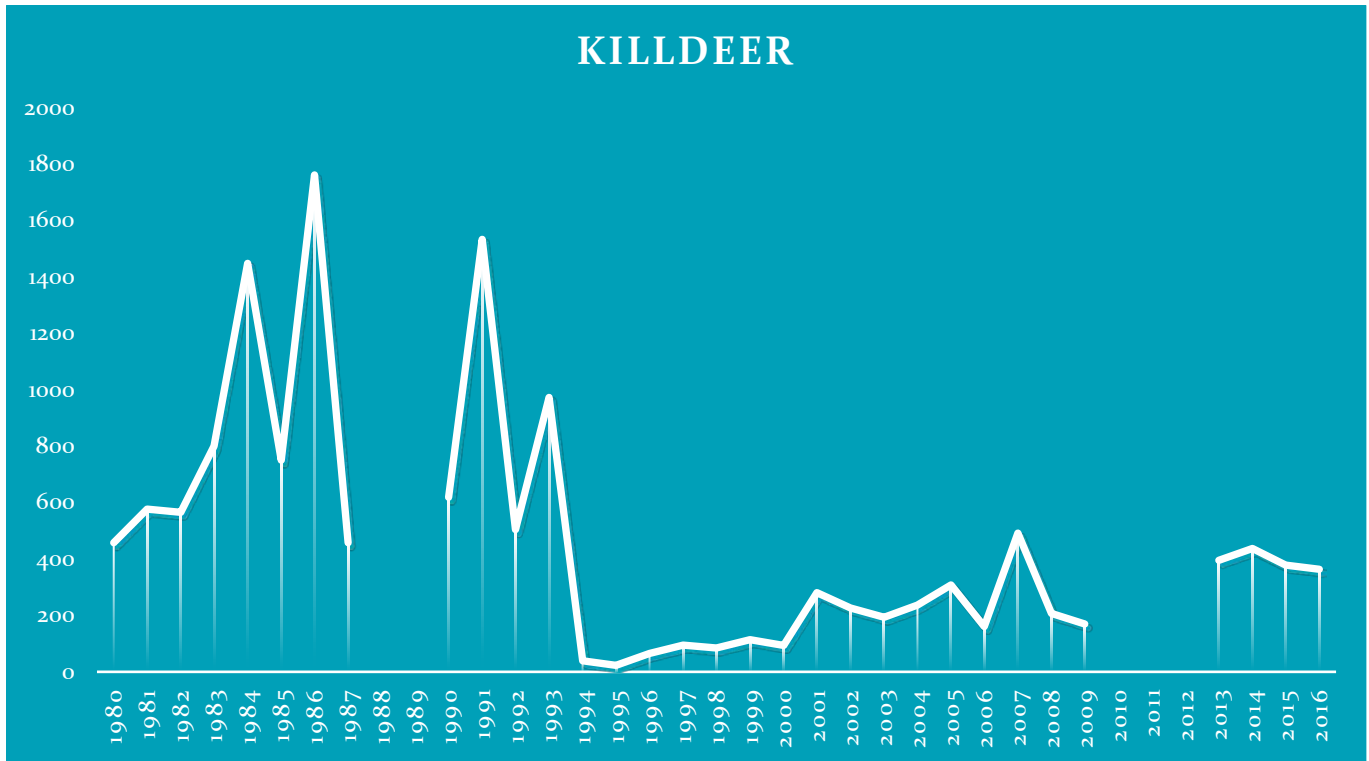
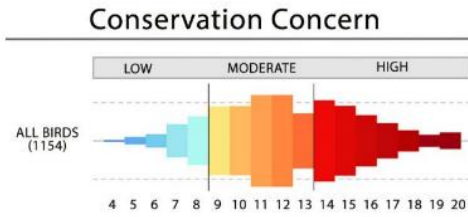
### Habitat:

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.

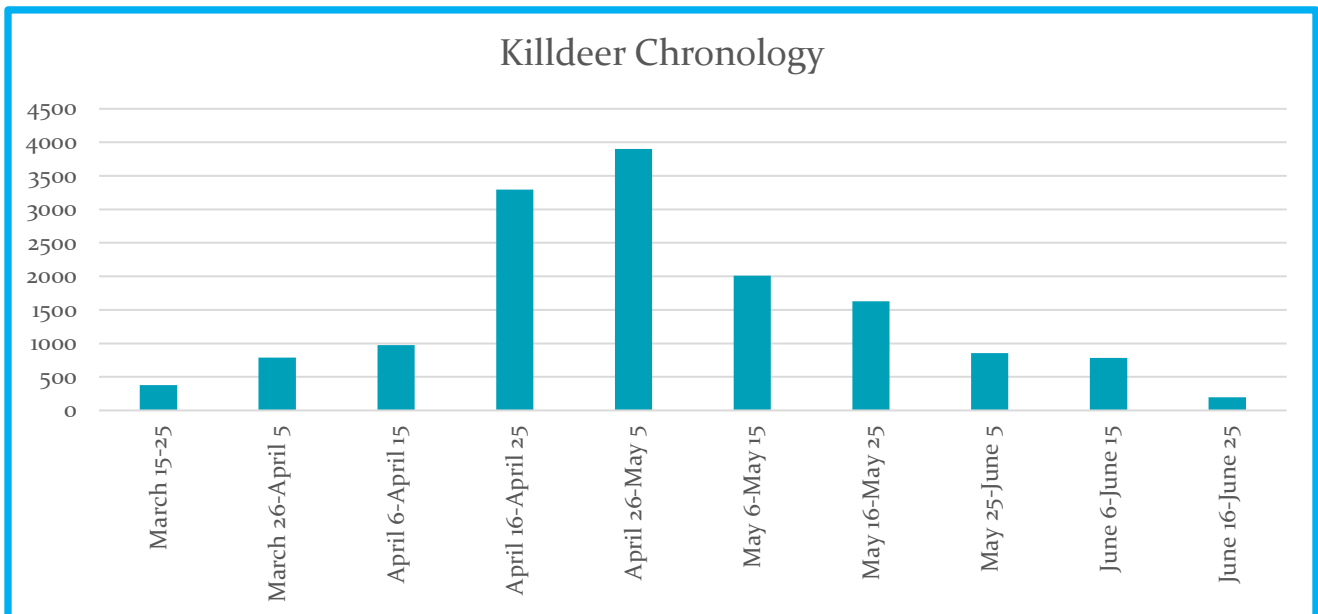
### Conservation Status:

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 mostly 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.

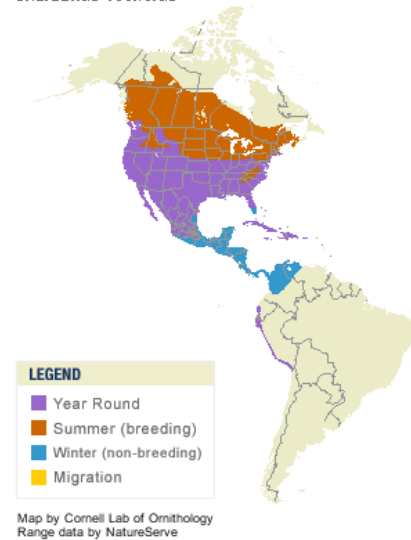
The Killdeer has a Conservation Concern Ranking of 11.



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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

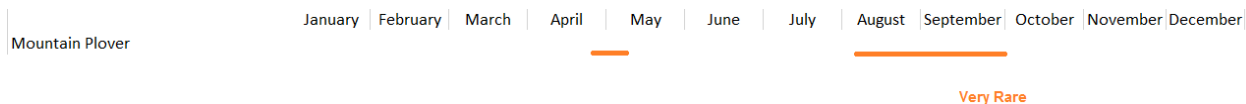
*Charadrius montanus*



My experience with Mountain Plovers at Cheyenne Bottoms is extremely limited. I have only seen two individuals during my twenty years working on the area. In fact, no Mountain Plovers have been recorded on the International Shorebird Survey and only a handful of observations do 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 seem 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:

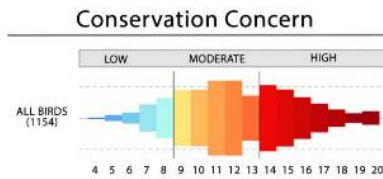
Like other plovers, the Mountain Plover is a terrestrial feeder that prefers to search for insects and insect larvae in dry and sparsely vegetated areas. When at Cheyenne Bottoms it prefers dry mud flats with little or no vegetation. It breeds on open plains at moderate elevation and winters in short-grass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

## Conservation Status:

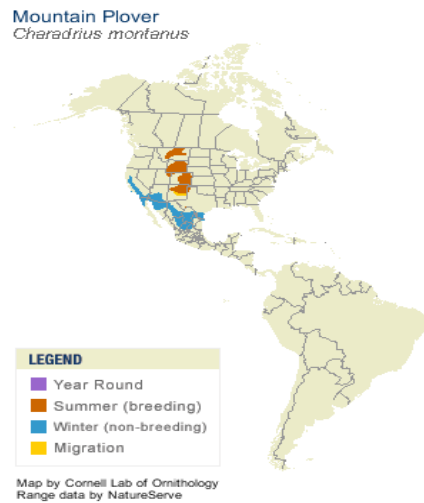
The Mountain Plover's name is a misnomer because it breeds on shortgrass prairies and winters in lowland agricultural districts. Fire suppression and cattle grazing have already taken a toll on this imperiled species' prairie habitat. More recently, climate change has been invoked as a factor contributing to declining habitat, and climate models corroborates 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

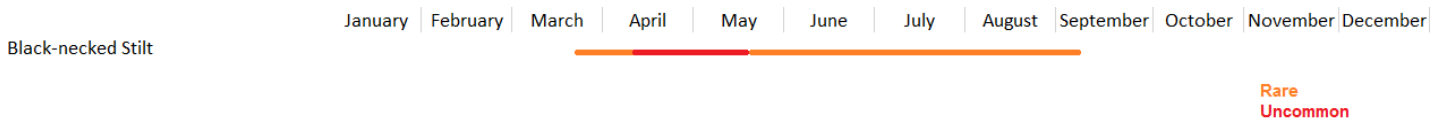
*Himantopus mexicanus*



Seeing the Black-necked Stilt is always a treat, some years only a few shows 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 mind 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.

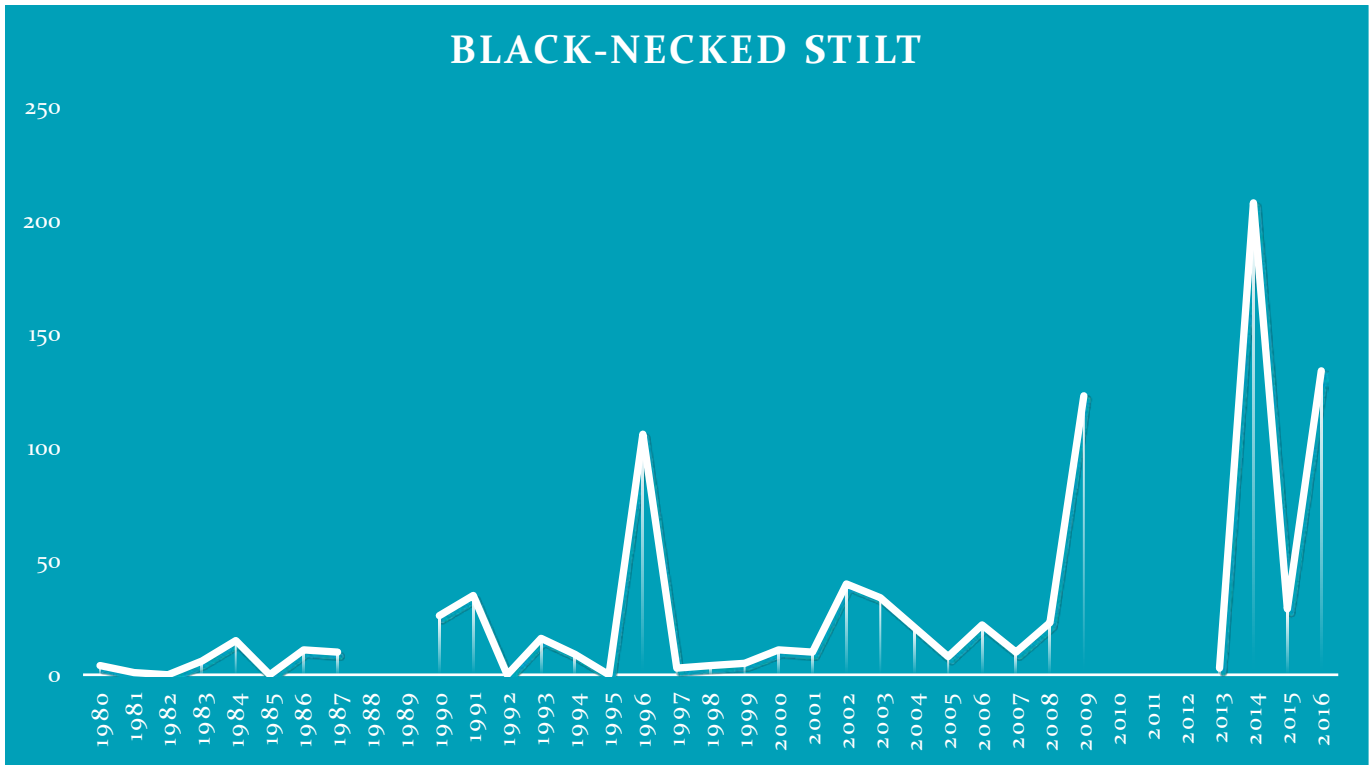
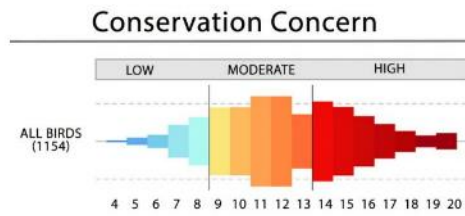
## Habitat:

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.

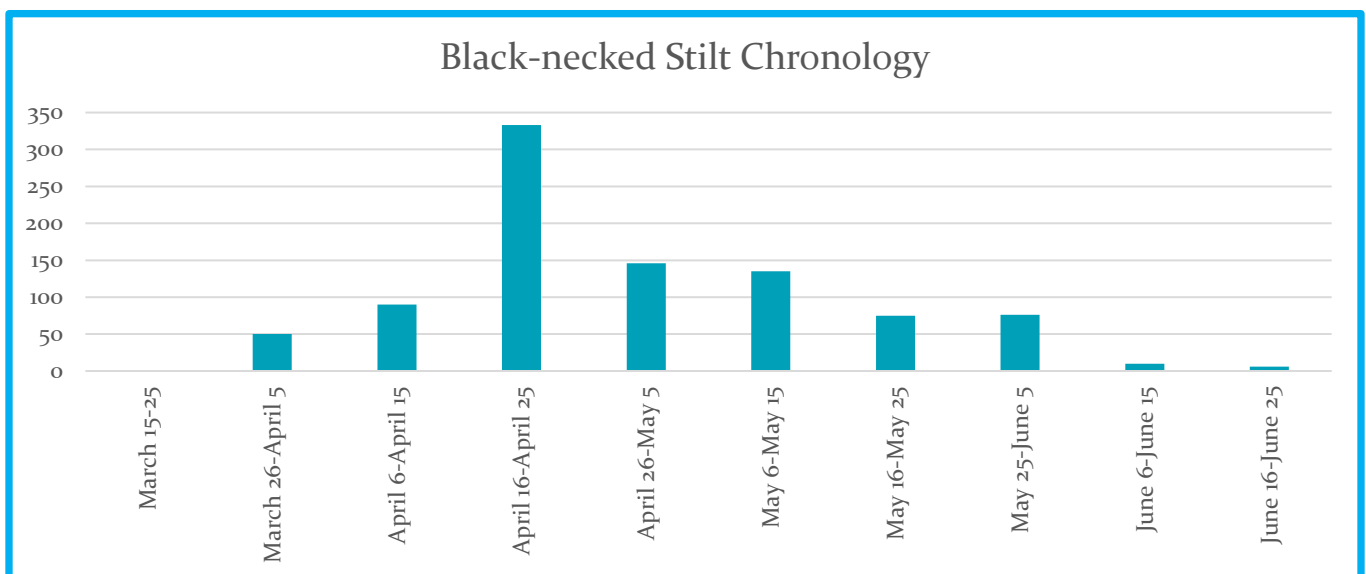
## Conservation Status:

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.

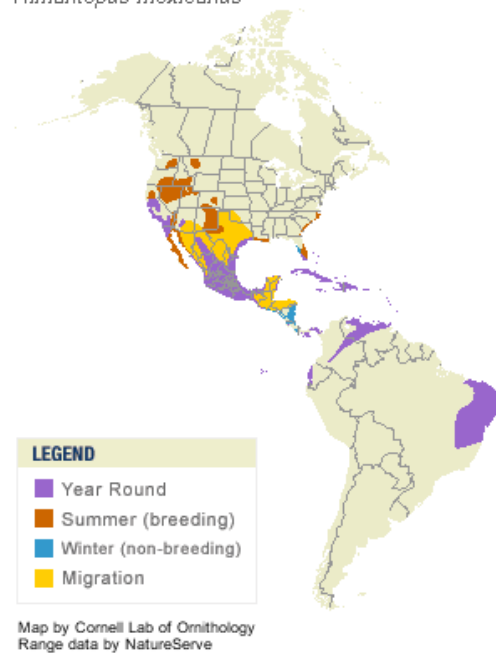
The Black-necked Stilt has a Conservation Concern Ranking of 8.



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012  
 In addition, the survey protocol during the 80's was slightly different than what is used today.  
 The survey dates were more frequent than the standard every ten days that is currently used, thus  
 the numbers might be slightly inflated due to double counting when survey days were too close together



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



- 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.

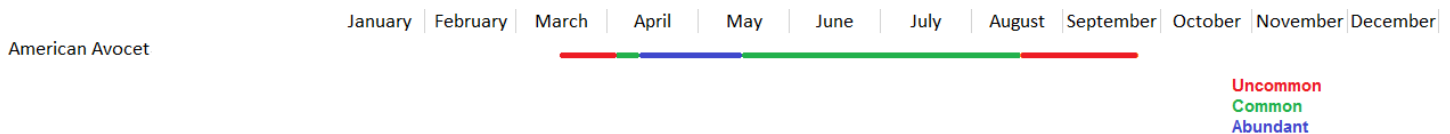
## American Avocet *Recurvirostra americana*



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.

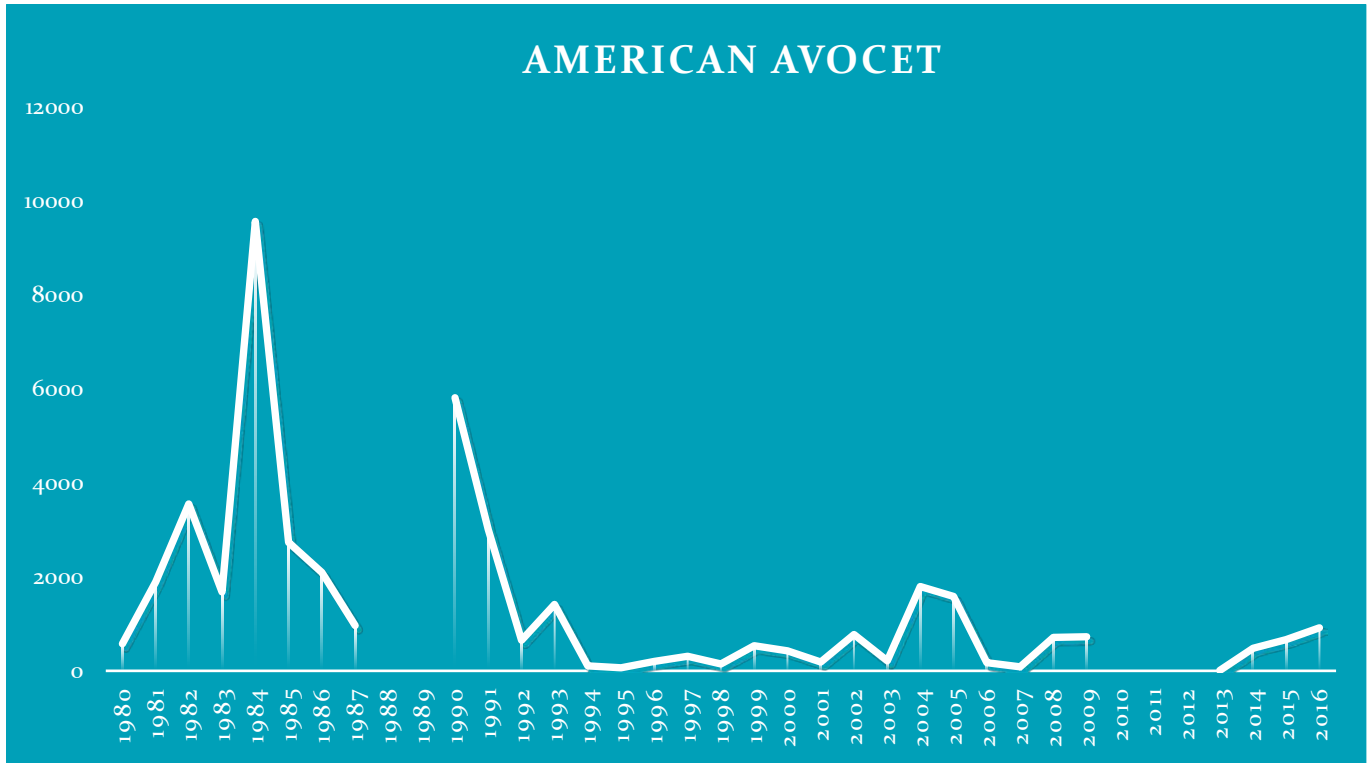
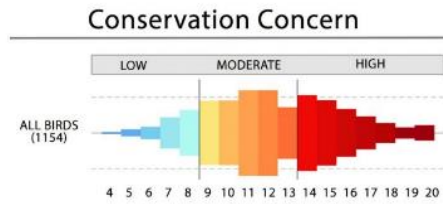
### Habitat:

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.

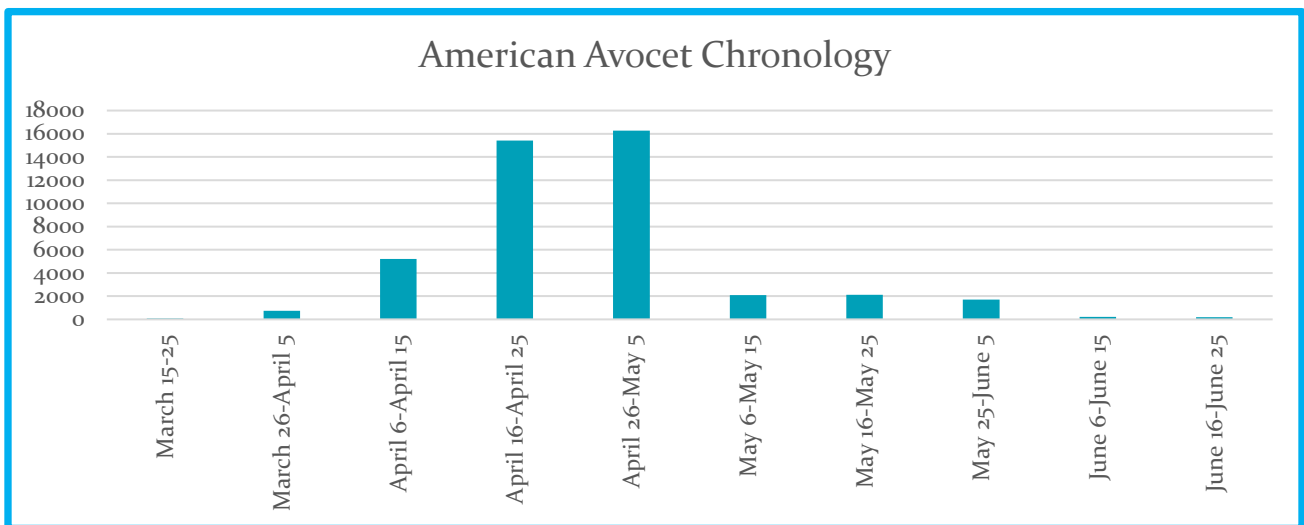
### Conservation Status:

The American Avocet prefers hot, open environments in shallow fresh and saltwater marshes. Climate model's projects 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.

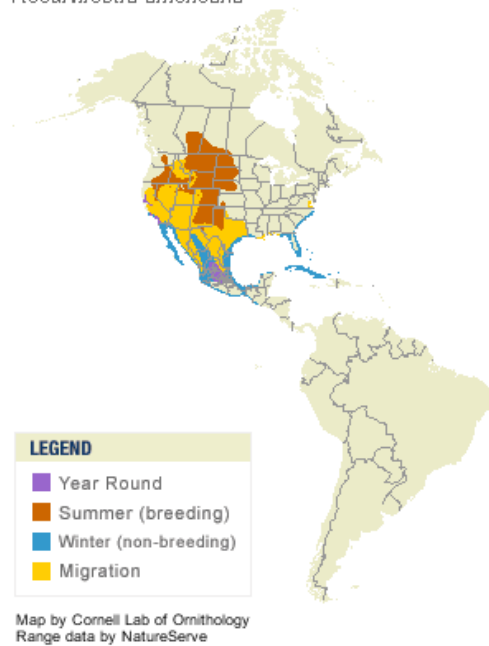
The American Avocet has a Conservation Concern Ranking of 12.



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012.  
 In addition, the survey protocol during the 80's was slightly different than what is used today.  
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 the numbers might be slightly inflated due to double counting when survey days were too close together.



**American Avocet**  
*Recurvirostra americana*



- In response to predators, the American Avocet sometimes issues a series of call notes that gradually changes 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.
- A female American Avocet may lay one to four eggs in the nest of another female, who then incubates the eggs. American Avocets may parasitize other species' nests too; single American Avocet eggs have been found in the nests of Mew Gulls. Other species may also parasitize avocet nests. Avocets have incubated mixed clutches of their own eggs and those of Common Terns or Black-necked Stilts. The avocets reared the stilt hatchlings as if they were their own.
- 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

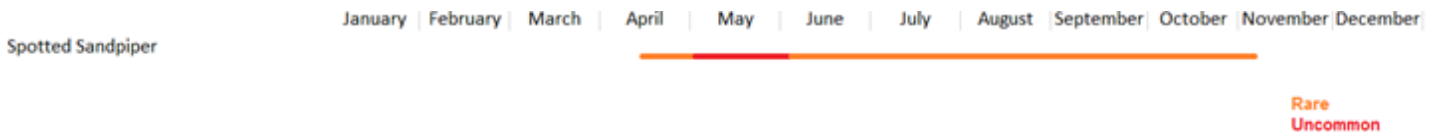
*Actitis macularius*



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.

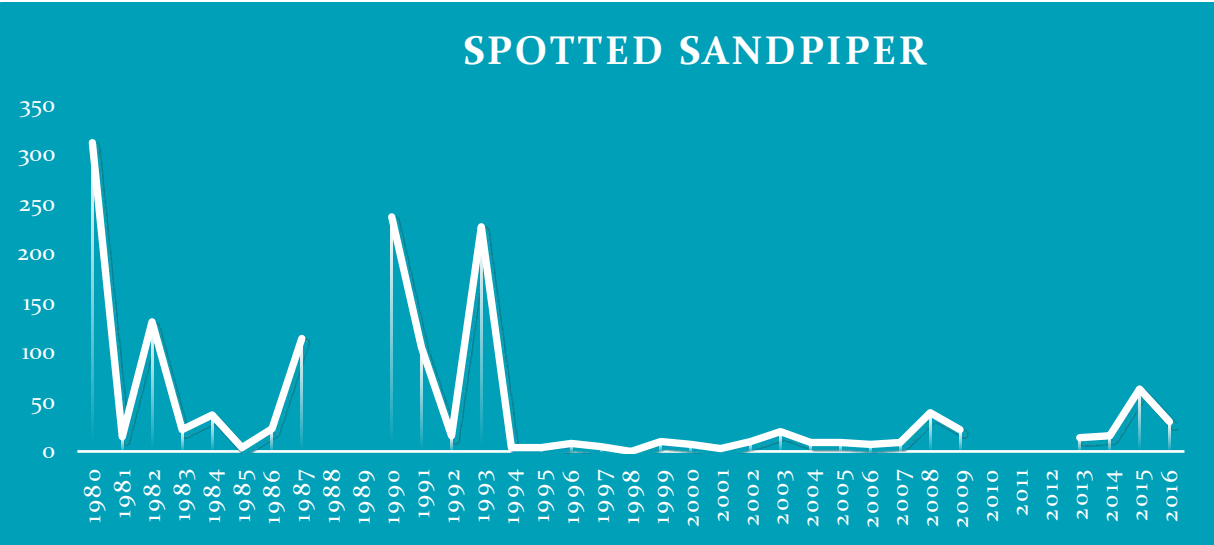
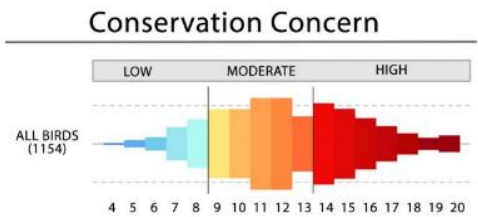
## Habitat:

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" in depth.

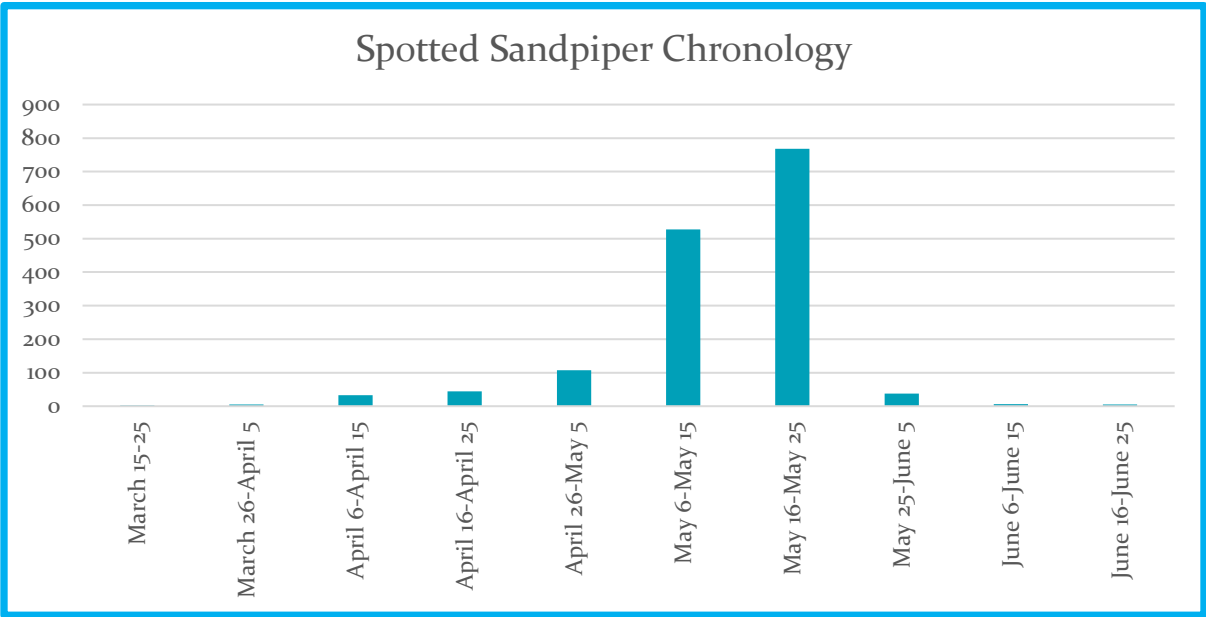
## Conservation Status:

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 forecasts 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.

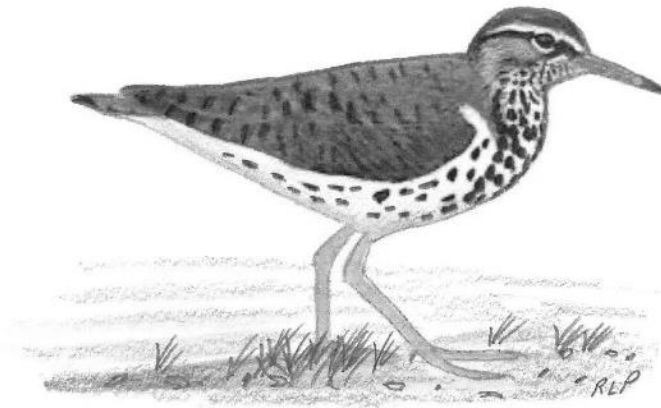
The Spotted Sandpiper has a Conservation Concern Ranking of 9.



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012. In addition, the survey protocol during the 80's was slightly different than what is used today. The survey dates were more frequent than the standard every ten days that is currently used, thus the numbers might be slightly inflated due to double counting when survey days were too close together.



Spotted Sandpiper  
*Actitis macularius*



- Female Spotted Sandpipers sometimes practice an unusual breeding strategy called polyandry, where 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. One female may lay eggs for up to four different males at a time.
- 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.

***Tringa solitaria***



Area Status:

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

Solitary Sandpiper

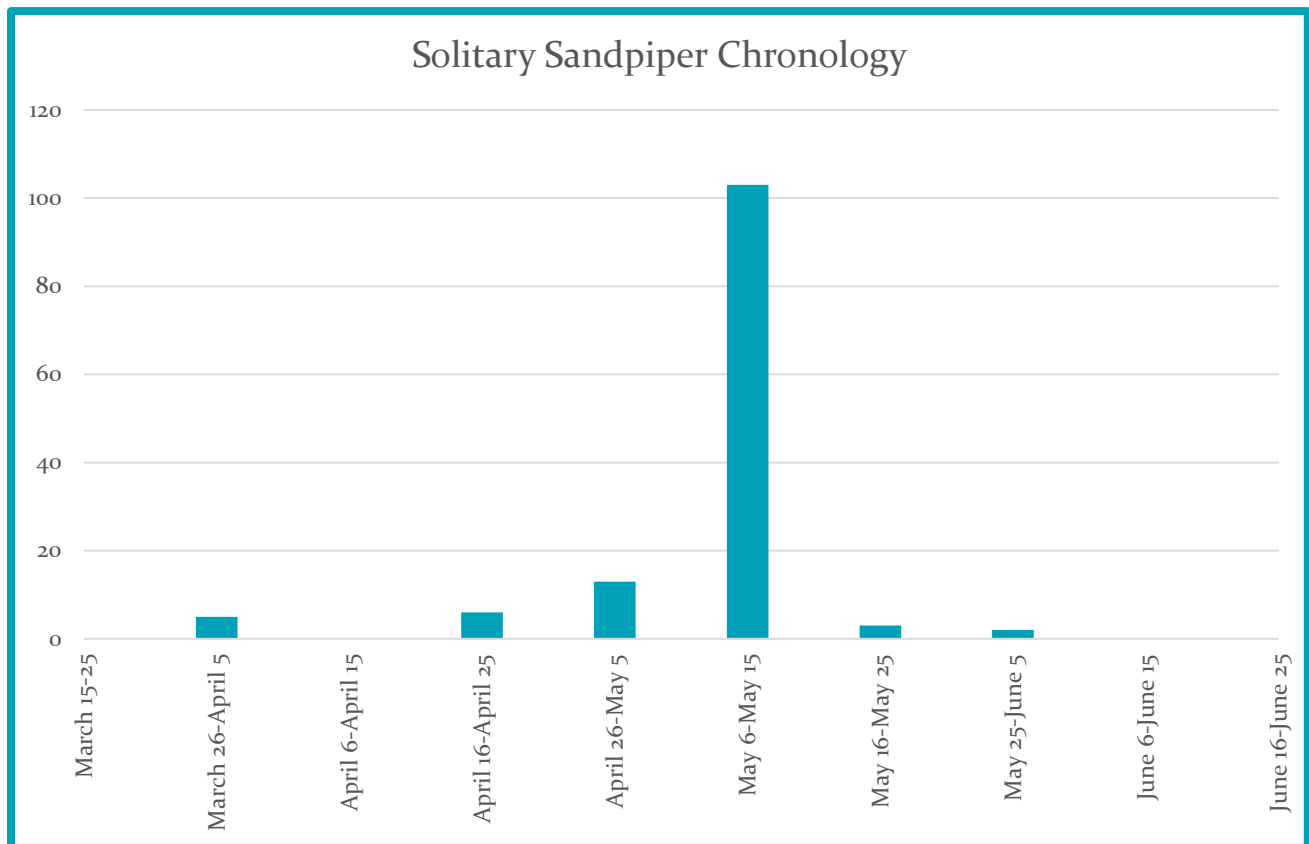
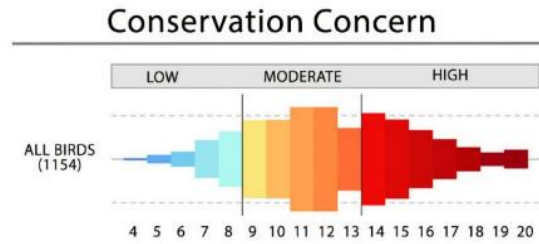
Rare

82 were recorded in May of 1982.

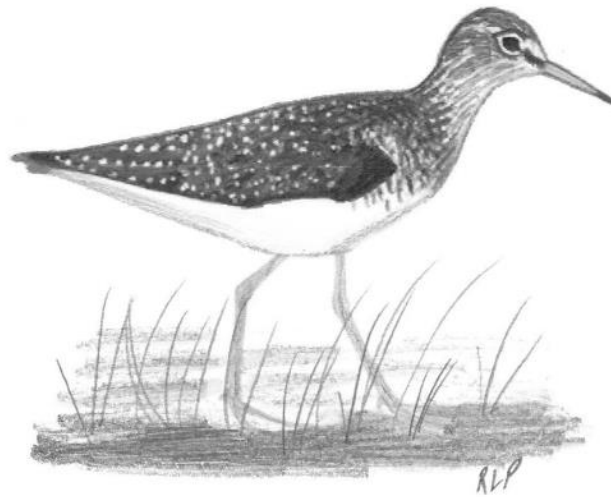
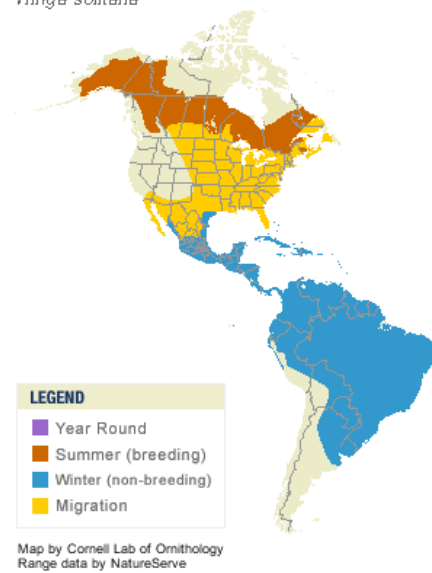
The Solitary Sandpiper is an aquatic gleaner which means it prefers to feed by pick up insects and small crustaceans within shallow water and along the water's edge. It is almost always found along small pools of water surrounded by vegetation or along creek banks and in flooded grasslands.

## PAGE 32

The Solitary Sandpiper has a Conservation Concern Ranking of 12.



Solitary Sandpiper  
*Tringa solitaria*



- 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 song birds, 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

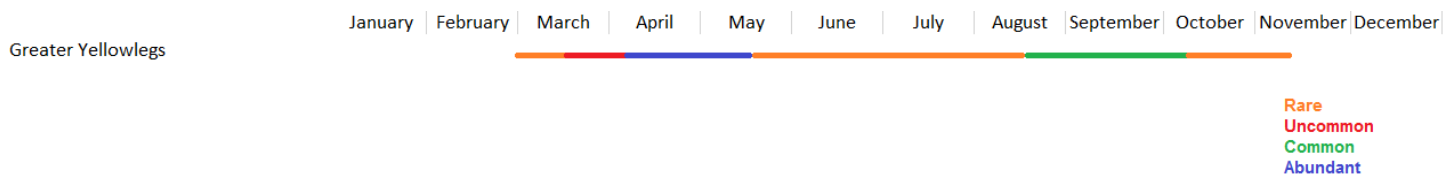
*Tringa melanoleuca*



If someone asked me what are the chances 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 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.

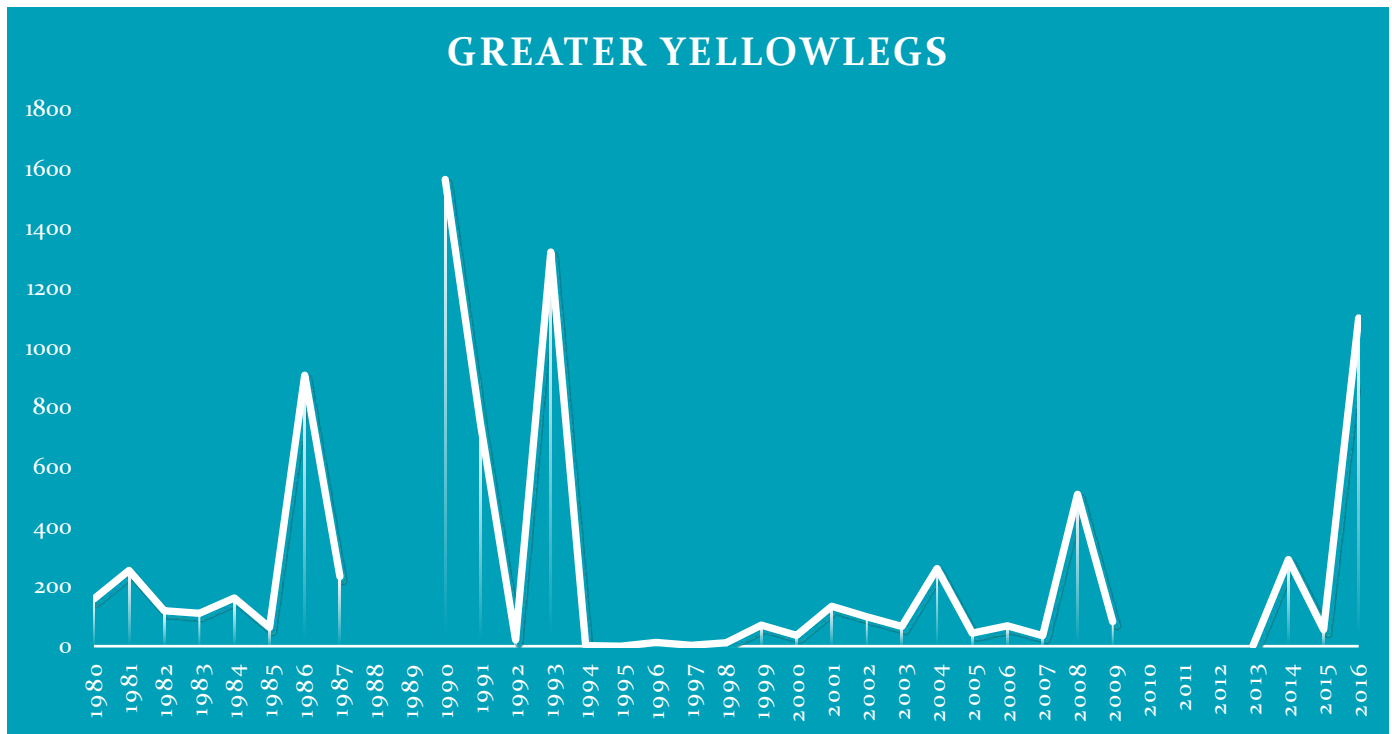
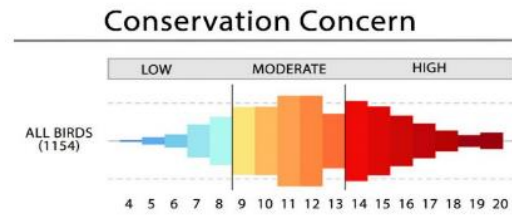
## Habitat:

The Greater Yellowlegs wades in water with an average depth of 1 to 3 inches, but can be found in slightly deeper water where it picks up prey it sees and sweeps its bill side-to-side through water to catch any prey by feel. It can be found in area 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 model's forecasts 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 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.

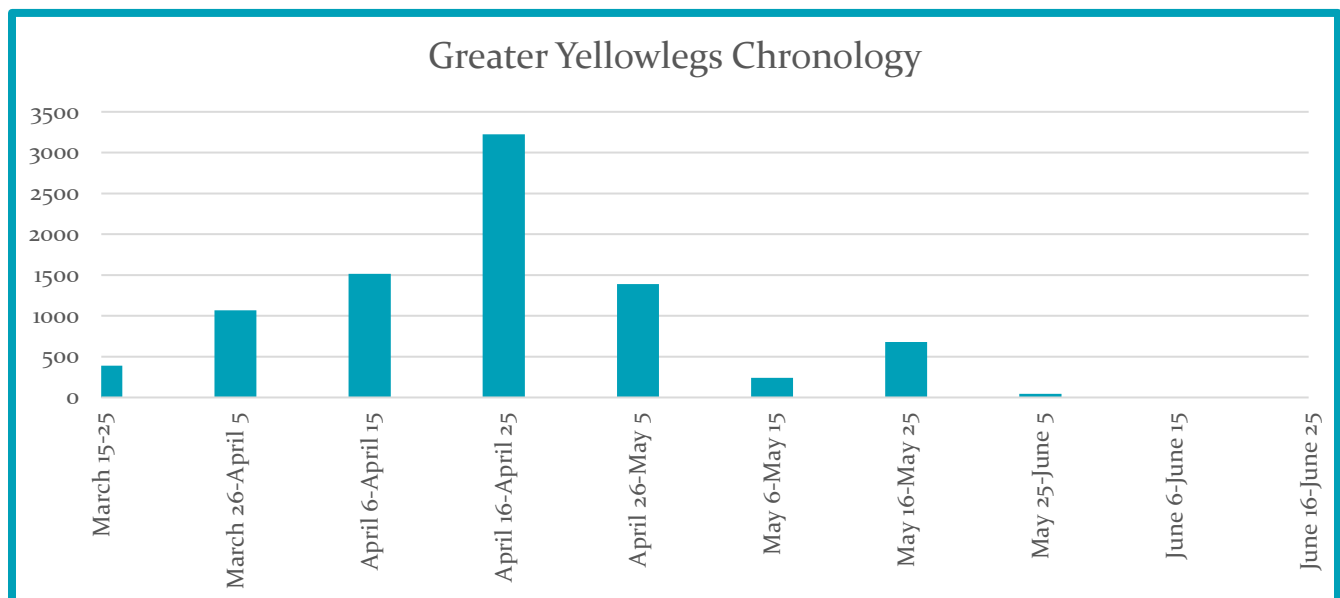
The Greater Yellowlegs has a Conservation Concern Ranking of 12.



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012

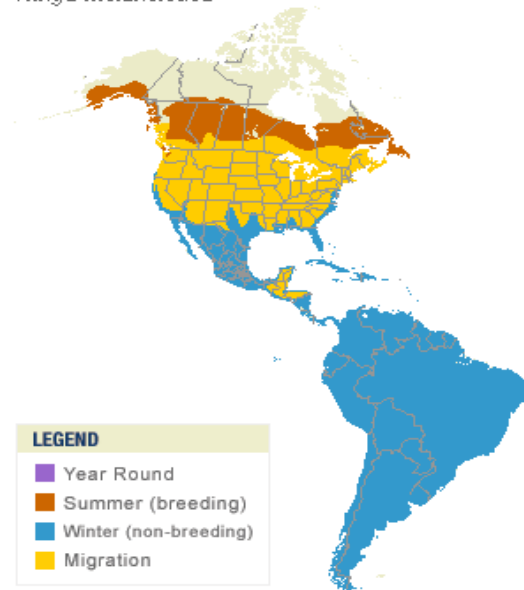
In addition, the survey protocol during the 80's was slightly different than what is used today.

The survey dates were more frequent than the standard every ten days that is currently used, thus the numbers might be slightly inflated due to double counting when survey days were too close together.





Greater Yellowlegs  
*Tringa melanoleuca*



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

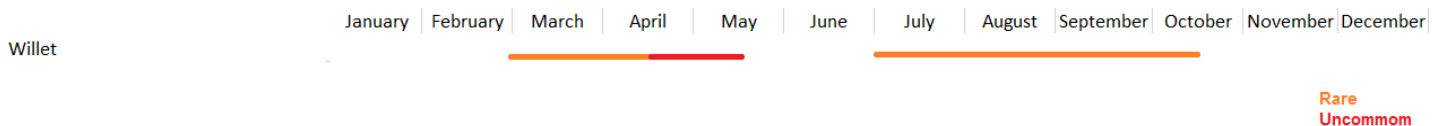
## *Catoptrophorus semipalmata*



The Willet in its mottled brown breeding plumage is a somewhat subdued looking shorebird, but its piercing calls and distinctive wing markings changes 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.

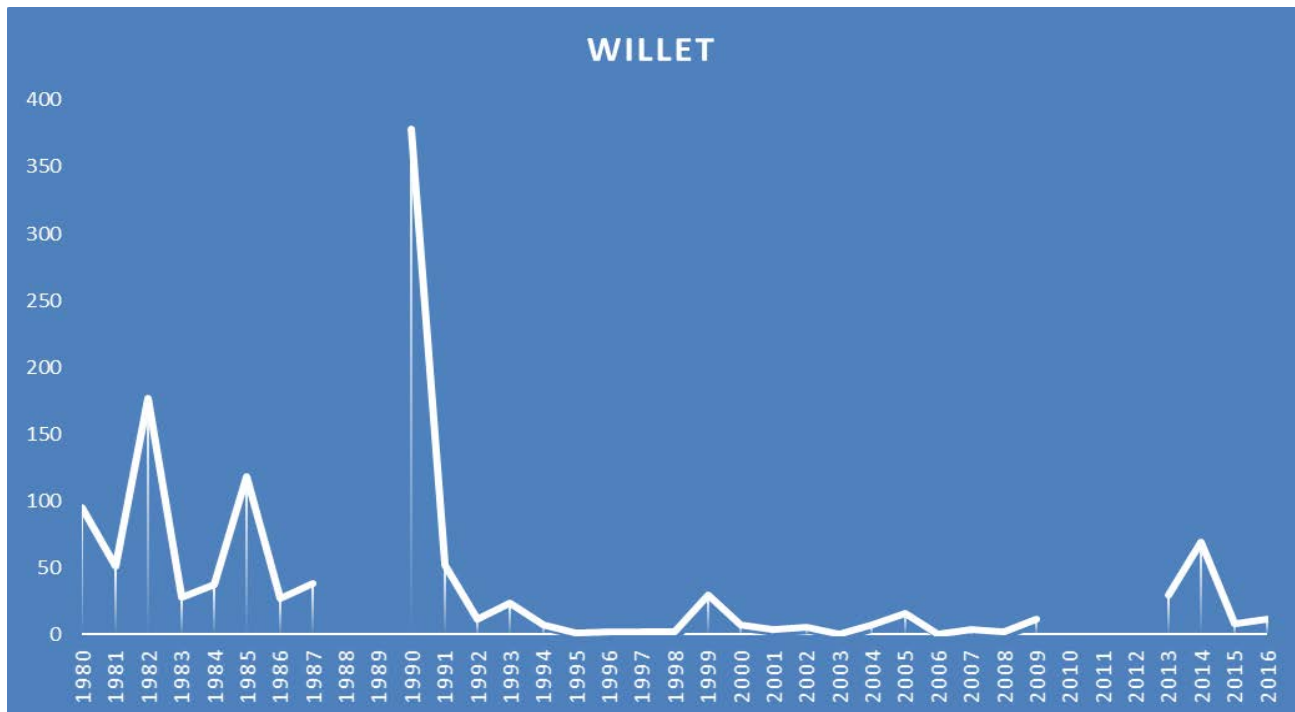
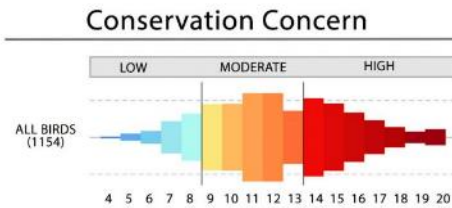
### Habitat:

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 of a 70 percent loss of current winter range by 2080 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. They can be found wintering on both coasts of the U.S. and in Mexico, and move to inland areas of the U.S. and Canada as well as to the N.E. coast of the U.S during the breeding season. 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.

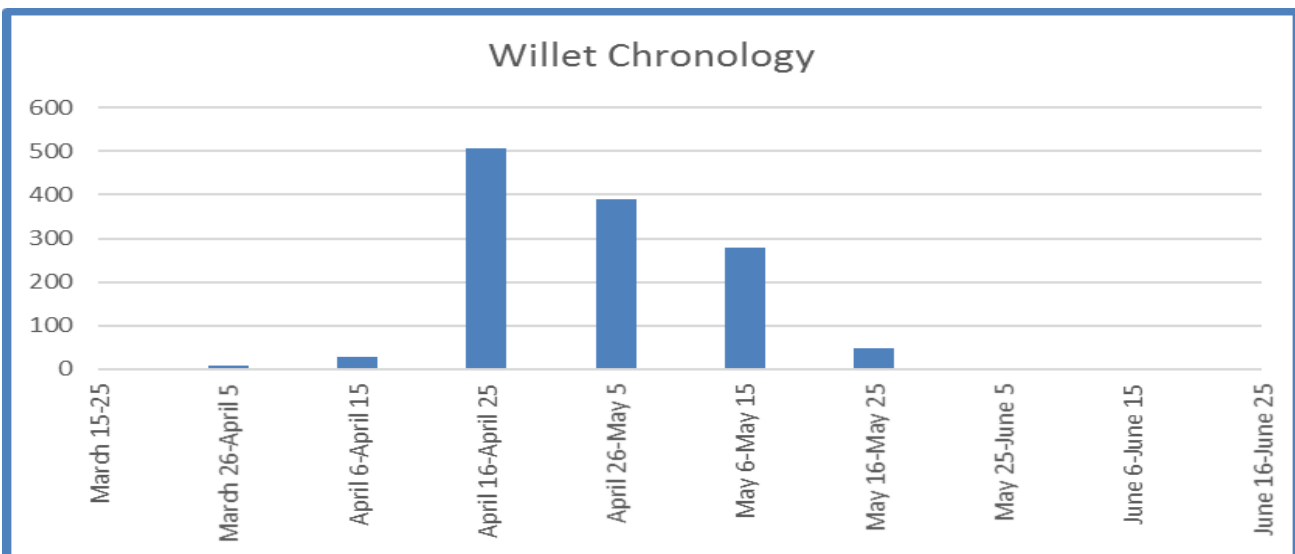
The Willet has a Conservation Concern Ranking of 14.



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012

In addition, the survey protocol during the 80's was slightly different than what is used today.

The survey dates were more frequent than the standard every ten days that is currently used, thus the numbers might be slightly inflated due to double counting when survey days were too close together.



Willet  
*Catoptrophorus semipalmatus*



- 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

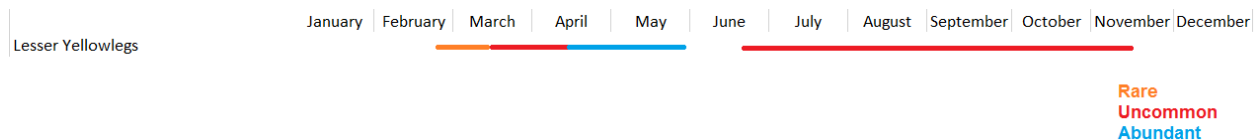
*Tringa flavipes*



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 is 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.

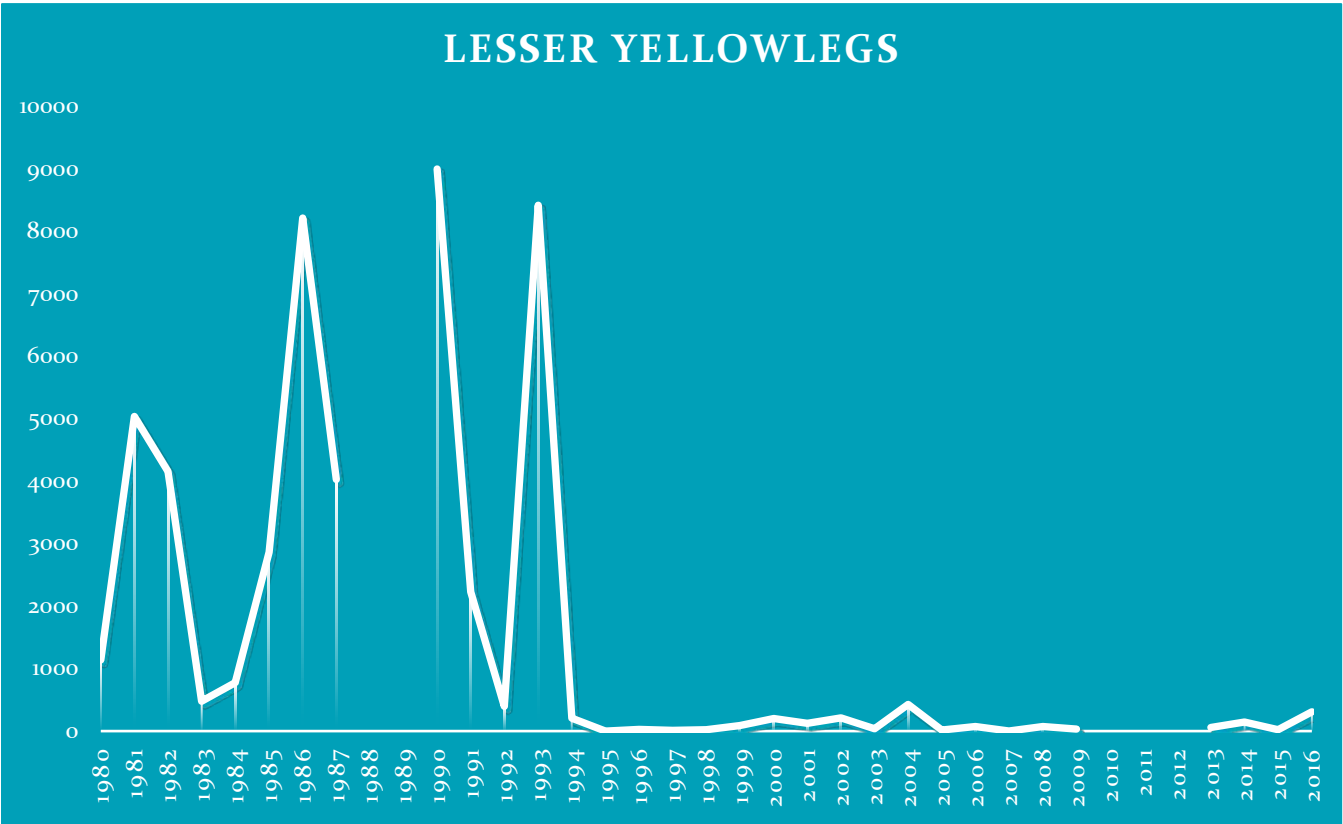
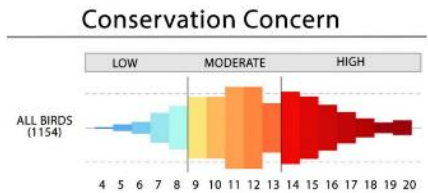
## Habitat:

The Lesser Yellowlegs feeds in water with an average depth of 1 to 2.5 inches, but can sometimes be found in slightly deeper water where it picks up prey it sees and 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 projects an 83% loss of current summer range by 2080, with no potential for expansion and marked move 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.

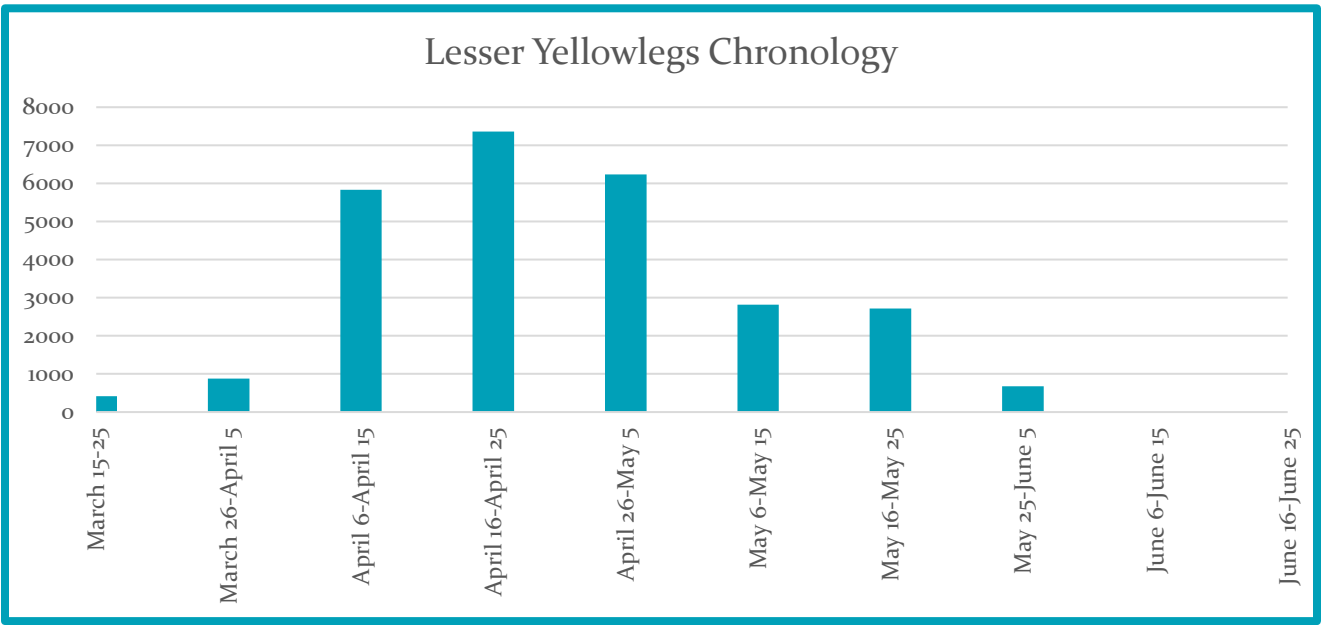
The Lesser Yellowlegs has a Conservation Concern Ranking of 13.



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012

In addition, the survey protocol during the 80's was slightly different than what is used today.

The survey dates were more frequent than the standard every ten days that is currently used, thus the numbers might be slightly inflated due to double counting when survey days were too close together.



Lesser Yellowlegs  
*Tringa 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.

***Bartramia longicauda***



Area Status:

Upland Sandpiper

This chart shows the seasonal range of the Upland Sandpiper. The x-axis represents the months from January to December. The y-axis indicates the status: Rare (orange) and Common (green). The bird is Rare from March to August and Common from April to September.

Month	Status
January	
February	
March	Rare
April	Common
May	Common
June	Common
July	Common
August	Rare
September	Common
October	
November	
December	

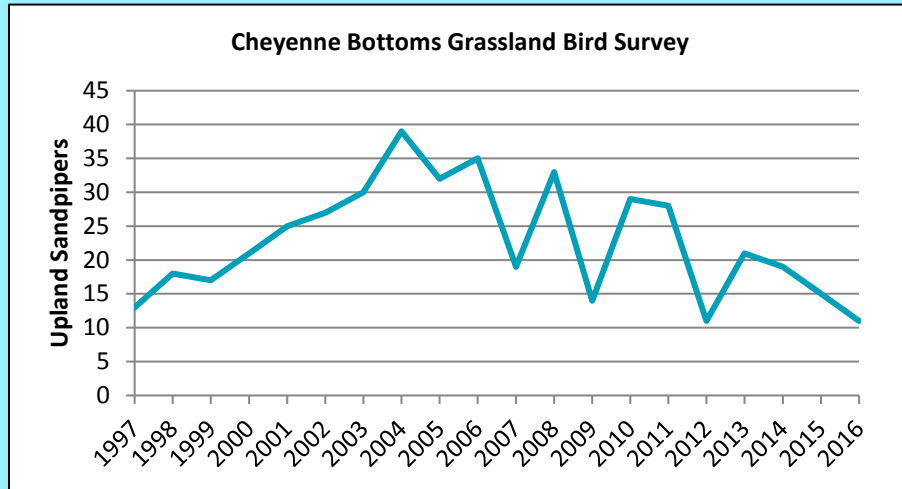
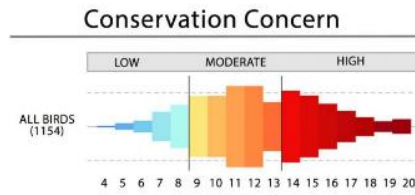
82 were recorded in May of 1994.

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.

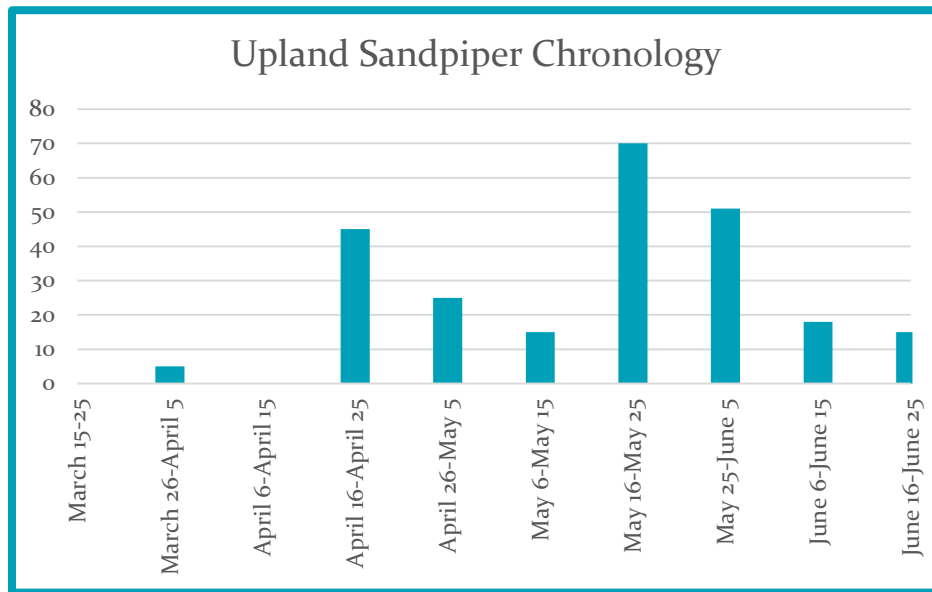
The Upland Sandpiper was once very abundant and widespread within its range. Though less common, despite some significant decreases in some areas, there have been increases in other areas, and overall the population was stable between 1966 and 2014, according to the North American Breeding Bird Survey. A 2012 assessment predicts that the current North American population is about 750,000. 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.



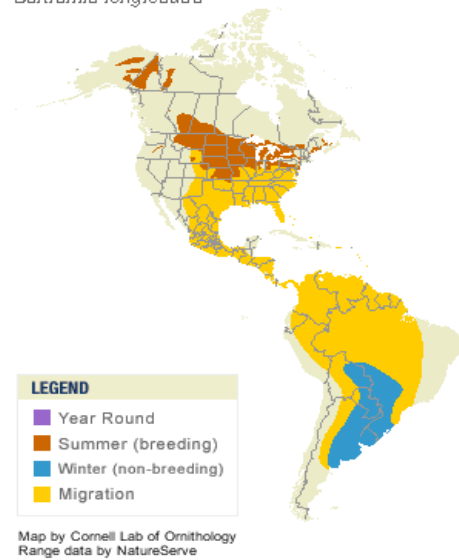
The Upland Sandpiper has a Conservation Concern Ranking of 10.



The extremely high water in 2007 and the drought of 2011 and 2012 are well exhibited. The drop in 2009 maybe a result of transect location bias for that year.



**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.
- In several northeastern states, many nesting Upland Sandpipers live on the grounds of airports.
- Upland Sandpiper pairs scrape out multiple depressions in the ground, but use only one for their actual nest.
- The oldest recorded Upland Sandpiper was at least 8 years, 11 months old, and lived in New York.

## Whimbrel

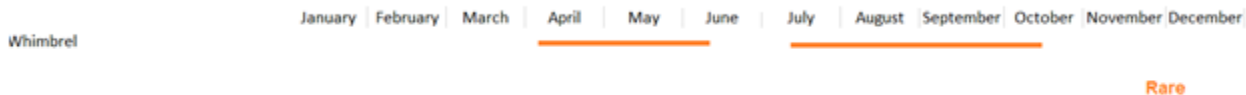
### *Numenius phaeopus*



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.

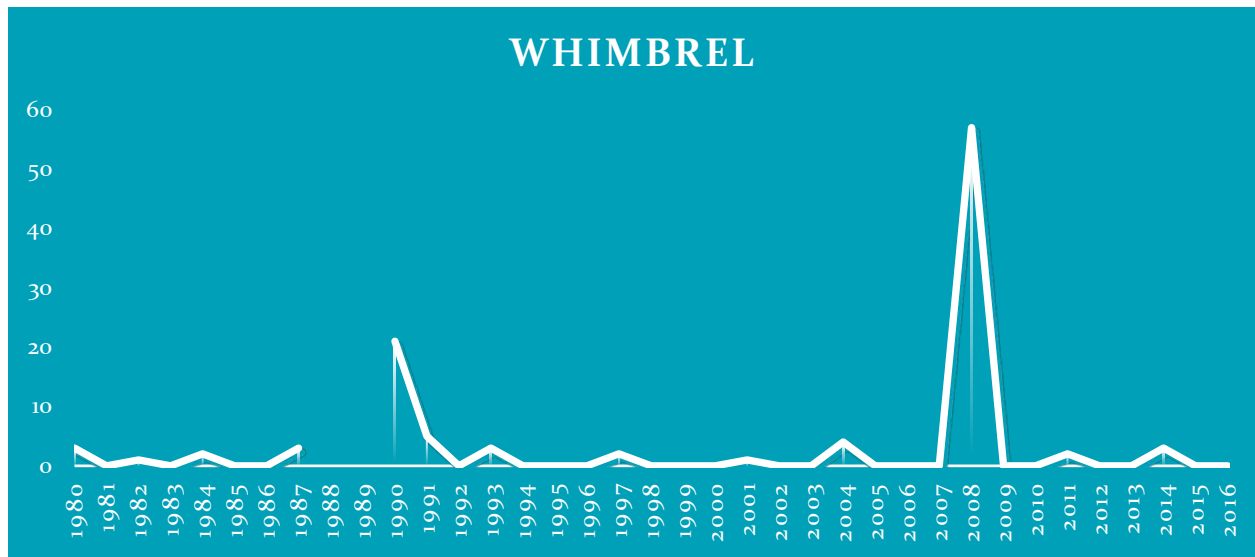
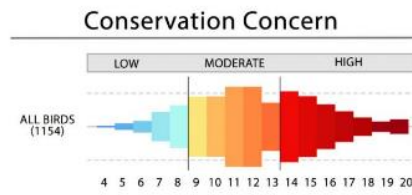
#### Habitat:

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 have been recorded on the International Shorebird Survey, a survey route that covers mainly shoreline habitat.

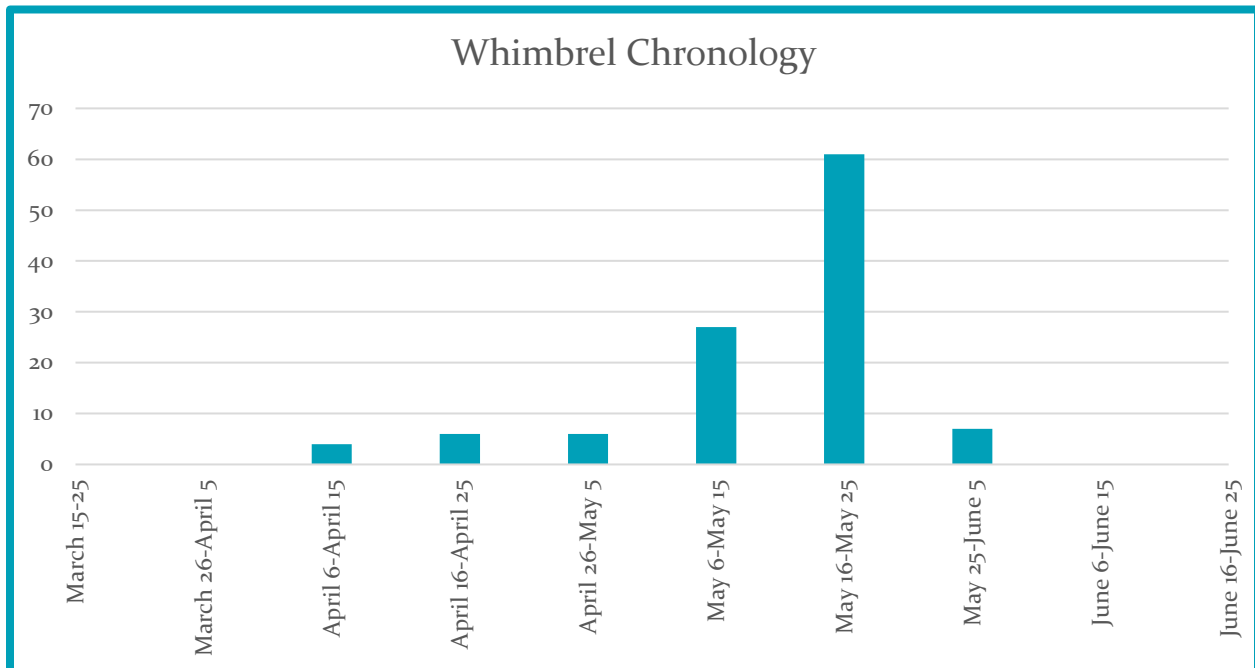
#### Conservation:

This powerful flier and accomplished migrant occurs widely in open habitats usually near coasts. As an arctic breeder, most of this species' summer distribution is remote. As such, climate models currently lack sufficient 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 1988, 1989, 2010, 2011, and 2012  
 In addition, the survey protocol during the 80's was slightly different than what is used today.  
 The survey dates were more frequent than the standard every ten days that is currently used, thus  
 the numbers might be slightly inflated due to double counting when survey days were too close together.



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 rereleased in Manitoba.

***Numenius americanus***



Area Status:

Long-billed Curlew

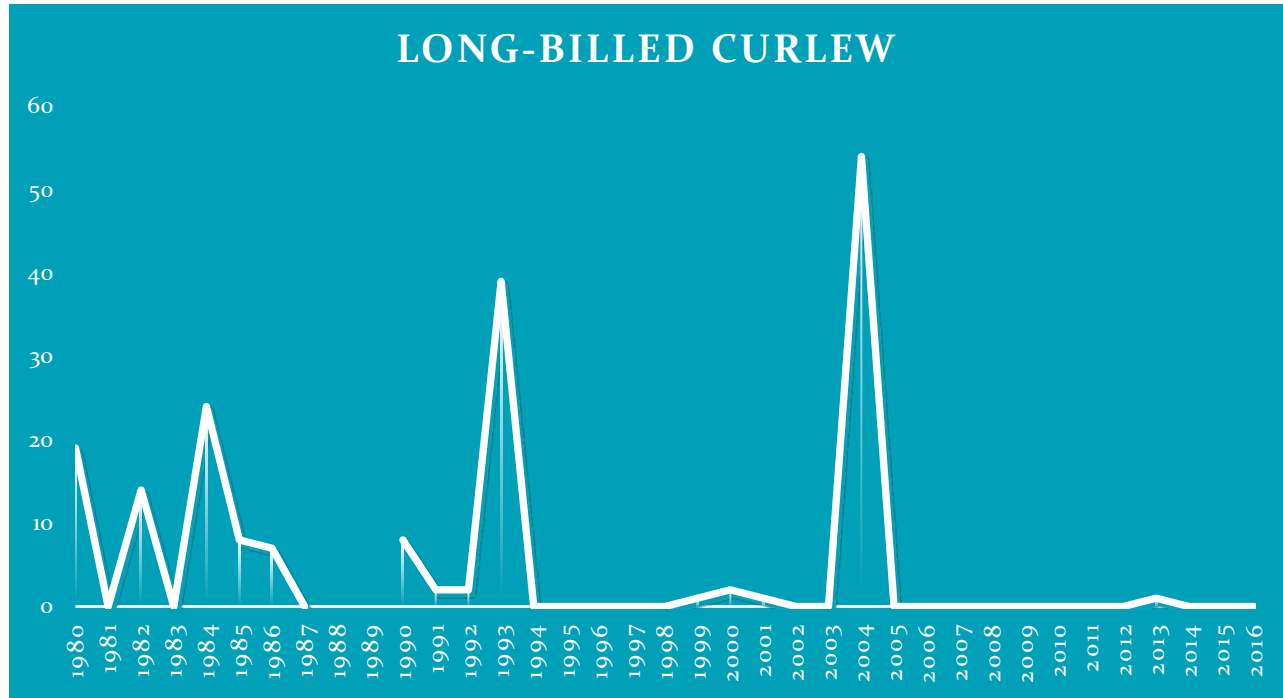
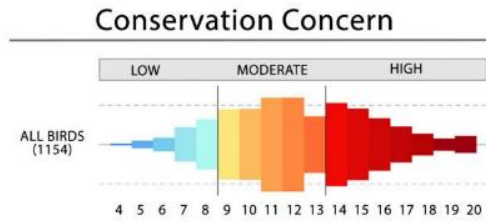


54 were recorded in May of 2004.

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.

## PAGE 50

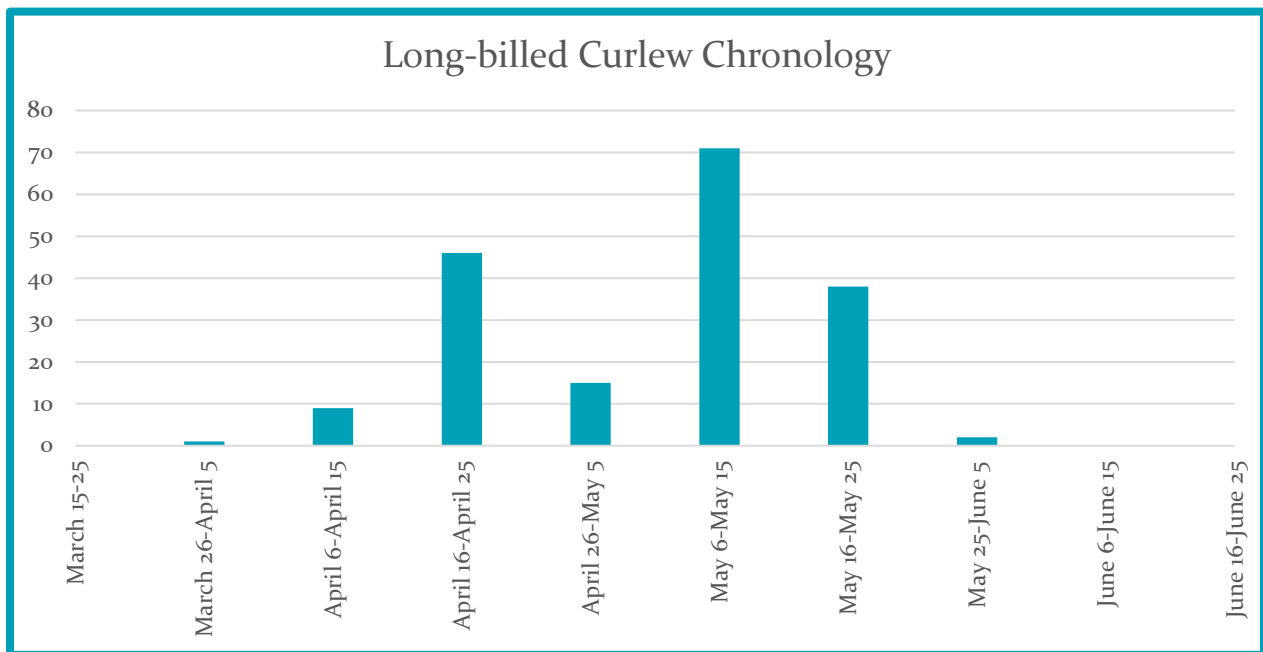
The Long-billed Curlew has a Conservation Concern Ranking of 14.



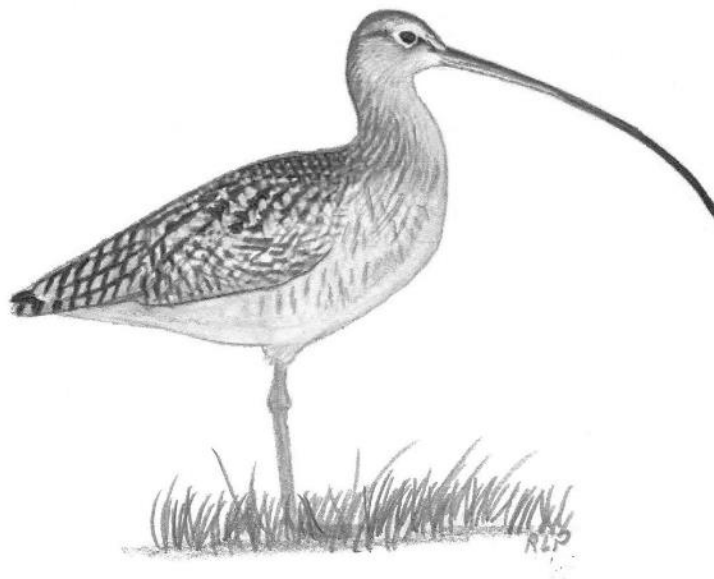
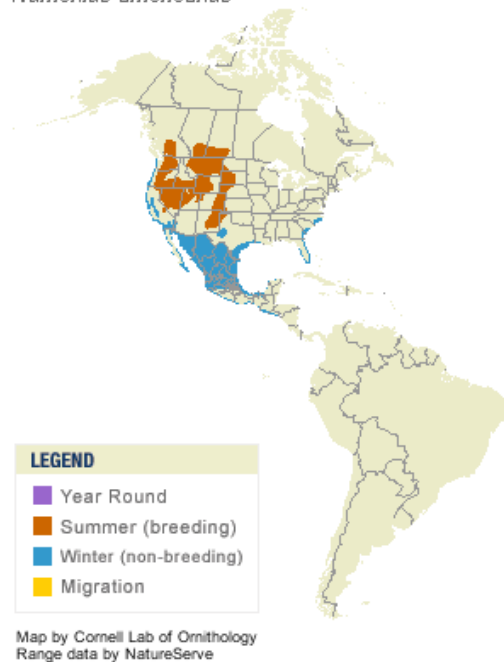
The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012

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**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.



# Hudsonian Godwit

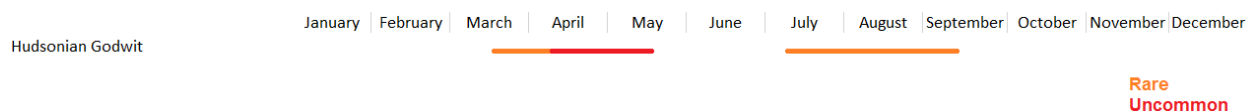
***Limosa haemastica***



There are two species of godwits that are regular visitors to Cheyenne Bottoms. The Hudsonian is smaller than the Marbled and has a slightly upturned bill, the dark rufous colored belly help to identify this species from the Marbled Godwit.

Area Status:

A somewhat uncommon spring migrant, however, some years it can be common. Usually it is a rare fall migrant. Spring migration runs from late March into late May, with the average first of the season observation date around April 12<sup>th</sup>. Fall migration runs from early July into mid-September.



High Count:

6,850 were recorded in April of 1993.

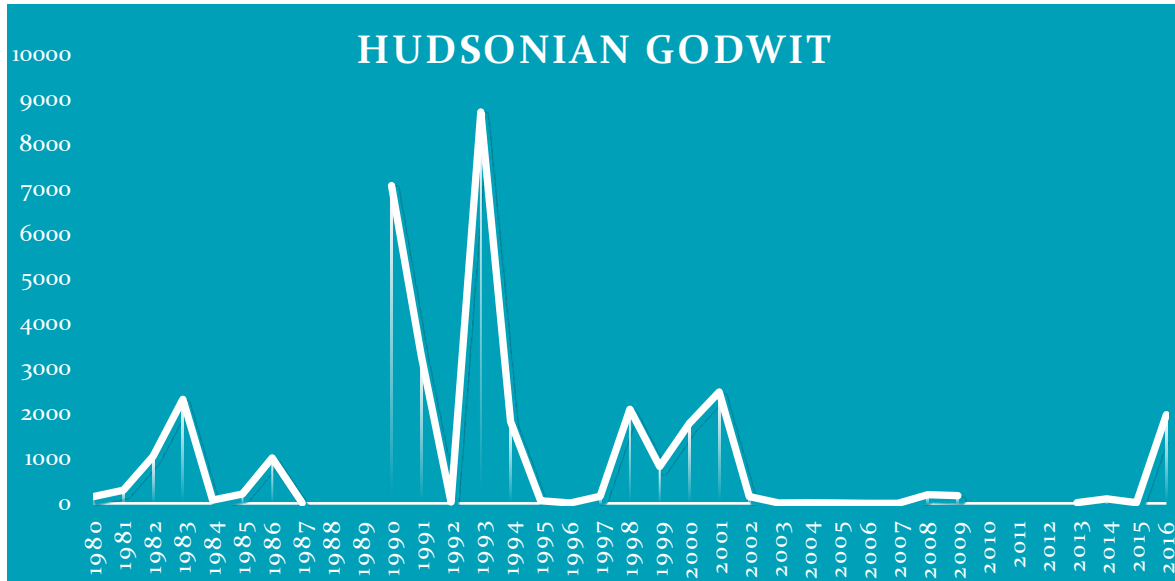
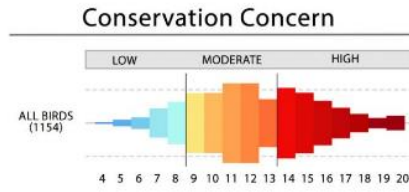
Habitat:

The Hudsonian Godwit feeds in open shallow water while the wet mud and water interfaces are preferred. It will also use mudflats and shallow marshes with a preferred foraging water depth of one inch to up to seven inches. While it is usually found near open water, it sometimes can be observed in wet meadows with vegetation heights that range from short to medium with a vegetation density from sparse to moderate.

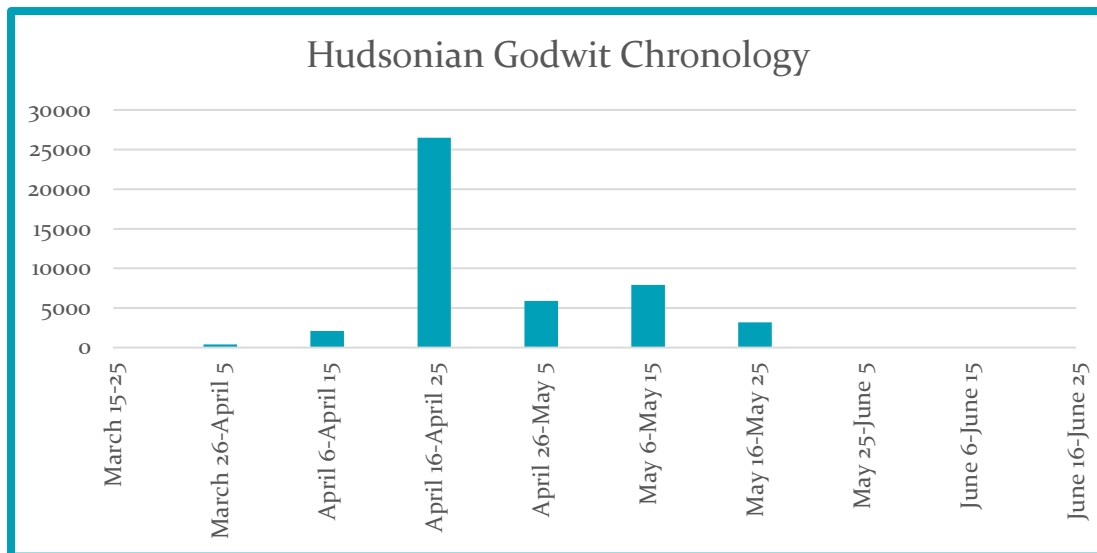
**Conservation Status:**

The Hudsonian Godwit is on the 2016 State of North America's Birds' Watch List, which includes bird species that are most at risk of extinction without significant conservation actions to reverse declines and reduce threats.

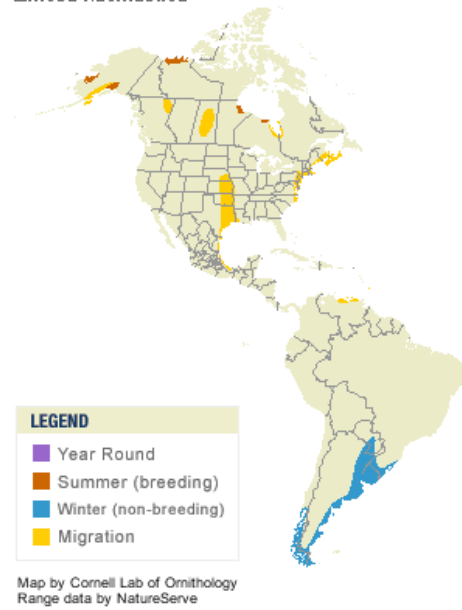
The Hudsonian Godwit has a Conservation Concern Ranking of 14.



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012  
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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

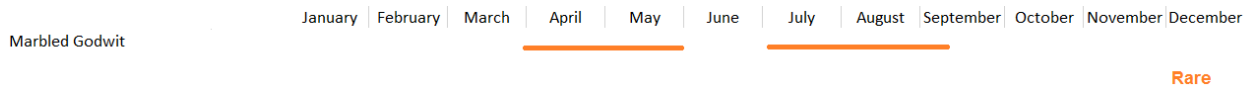
*Limosa fedoa*



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 was 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.

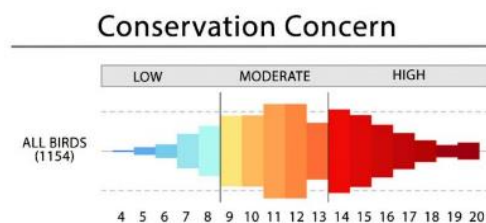
## Habitat:

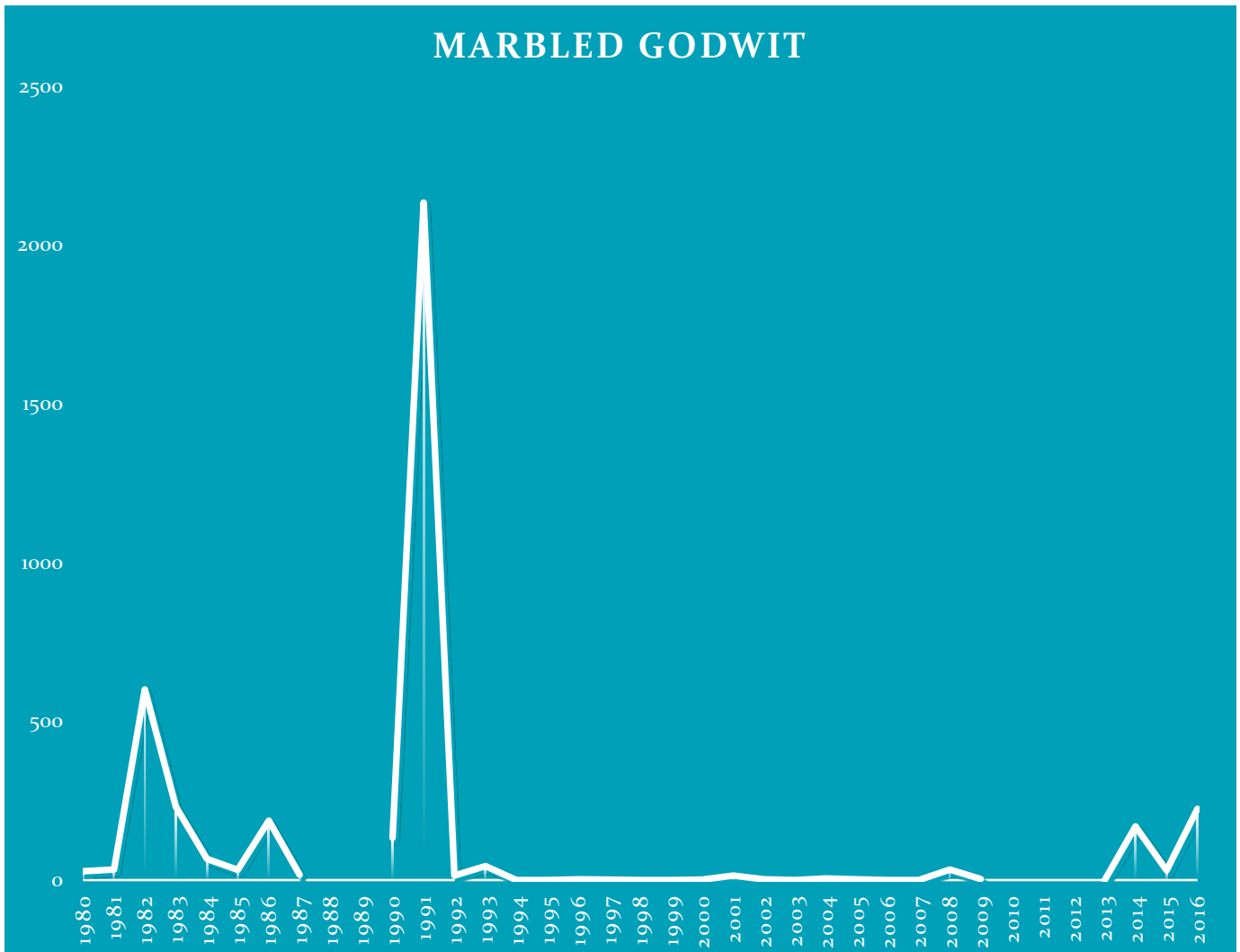
The Marbled Godwit feeds in open shallow water while the wet mud and water interfaces are preferred. It will also use mudflats and shallow marshes with a preferred foraging depth of one inch to up to eight inches. While it is usually found in open water, it also can be observed in wet pastures and fields.

## Conservation Status:

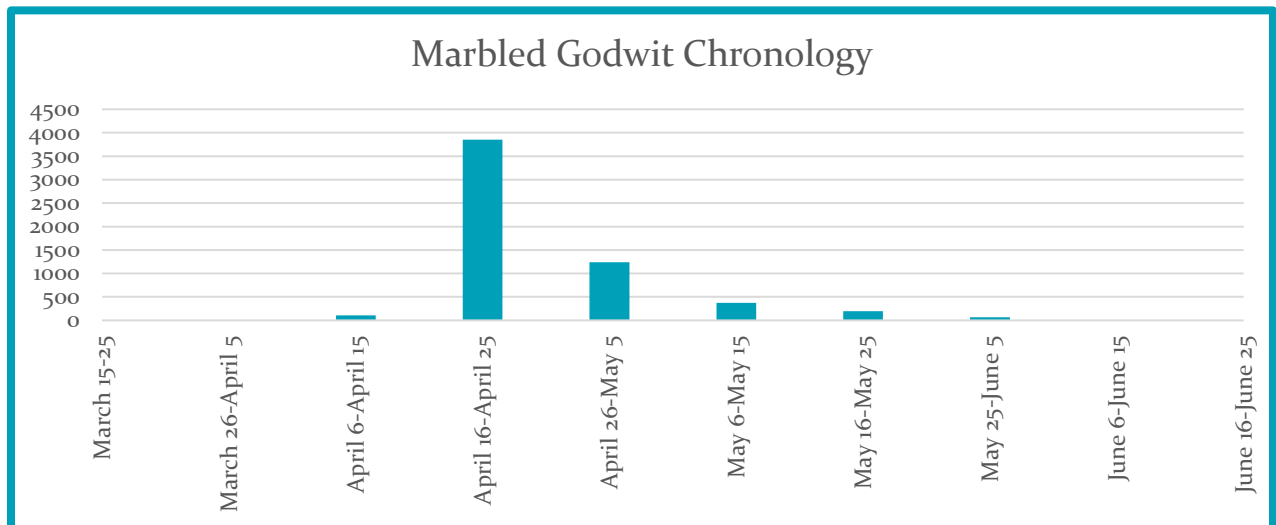
The Marbled Godwit is an inhabitant of open sites in the middle of the continent, favoring wet habitats. Current climate models predict a 100% loss of current summer range by 2080. The wintering grounds may expand considerably, with southern Arizona and inland California opening to non-breeding Marbled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

The Marbled Godwit has a Conservation Concern Ranking of 15.





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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

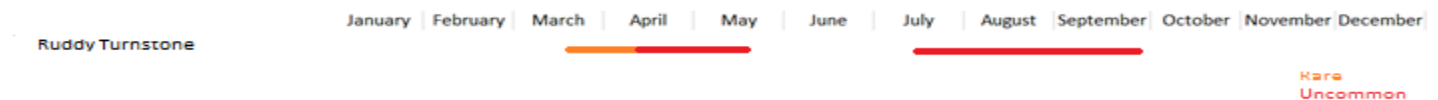
*Arenaria interpres*



The Ruddy Turnstone in my opinion is one of the showiest of shorebirds. Common along the coasts but generally rare at inland sites like Cheyenne Bottoms. Usually 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 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.

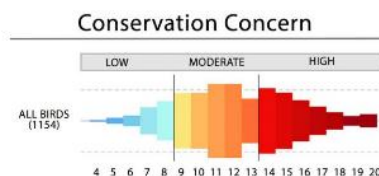
## Habitat:

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.

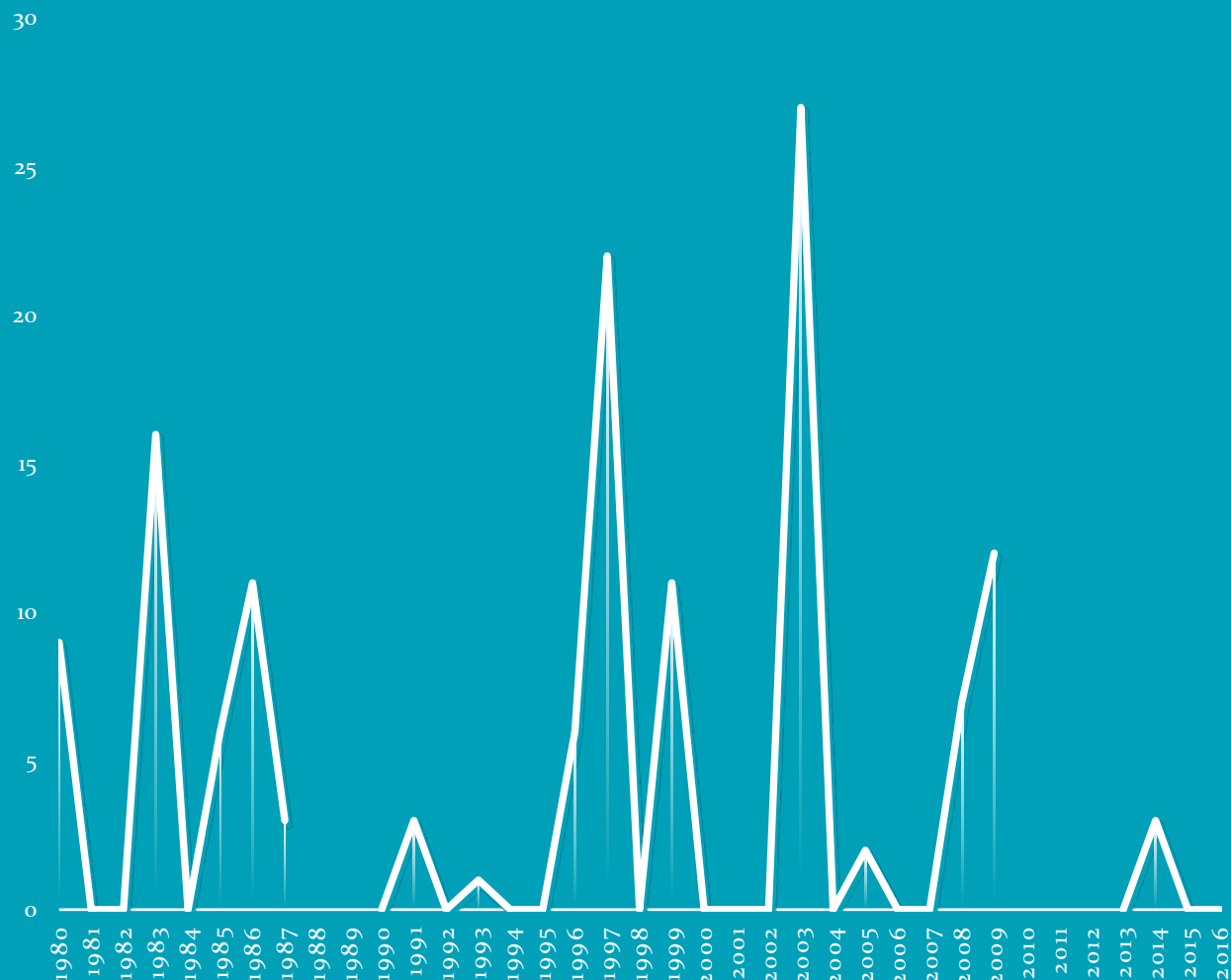
## Conservation Status:

The Ruddy Turnstone is known to most birders as a winter visitor along rocky beaches and breakwaters on both coasts. Climate models forecasts 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

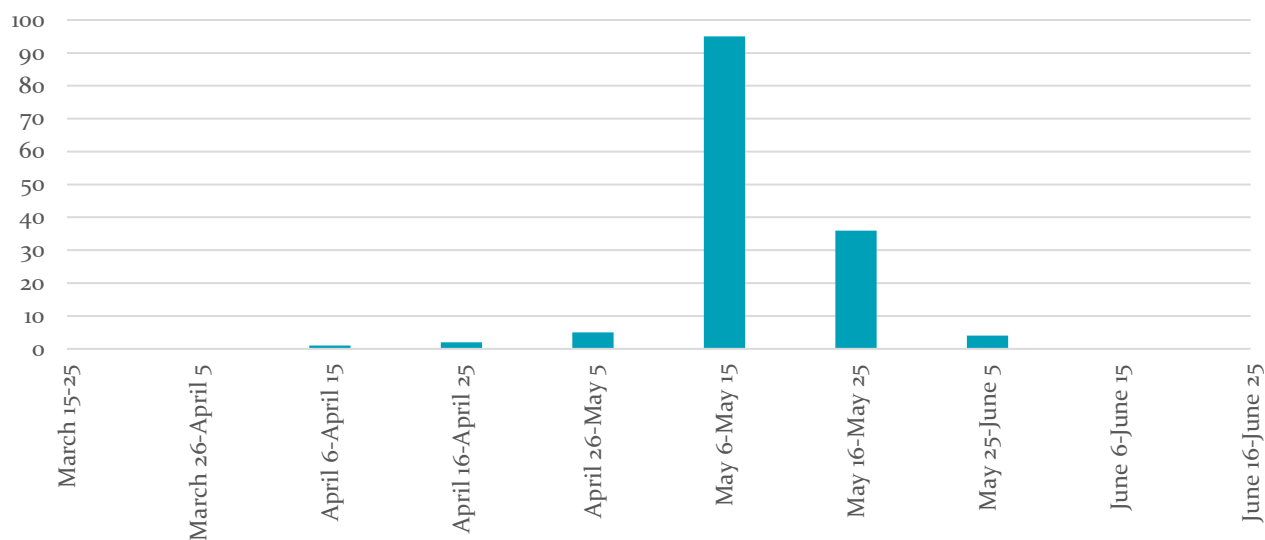


The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012

In addition, the survey protocol during the 80's was slightly different than what is used today.

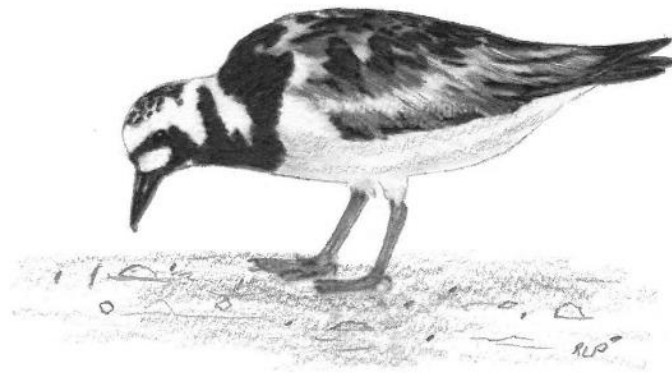
The survey dates were more frequent than the standard every ten days that is currently used, thus the numbers might be slightly inflated due to double counting when survey days were too close together.

### 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.

## 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 few recorded recently. 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.

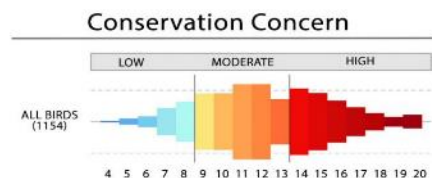
### Habitat:

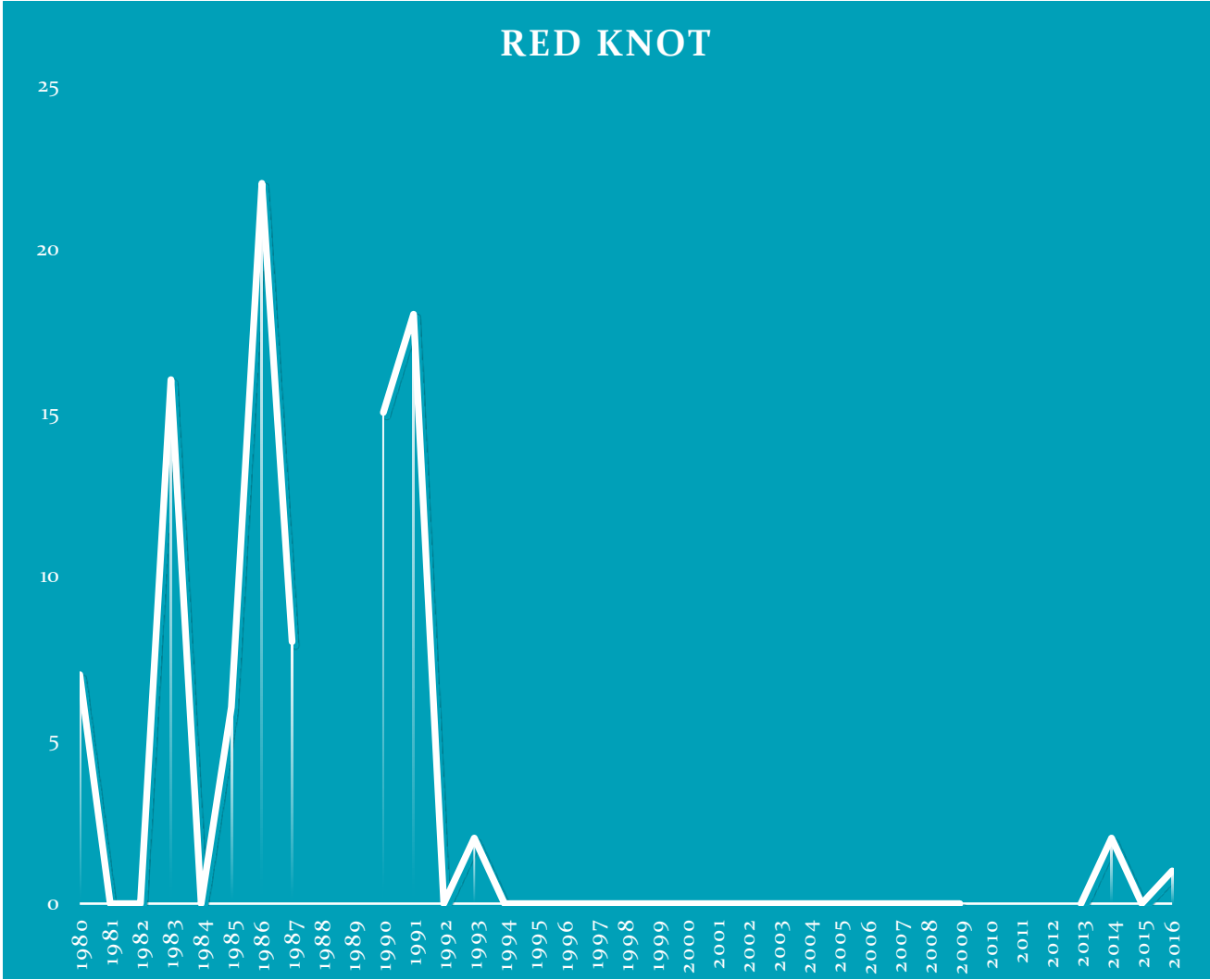
At Cheyenne Bottoms, it prefers to feed on vegetation free mud flats.

### Conservation Status:

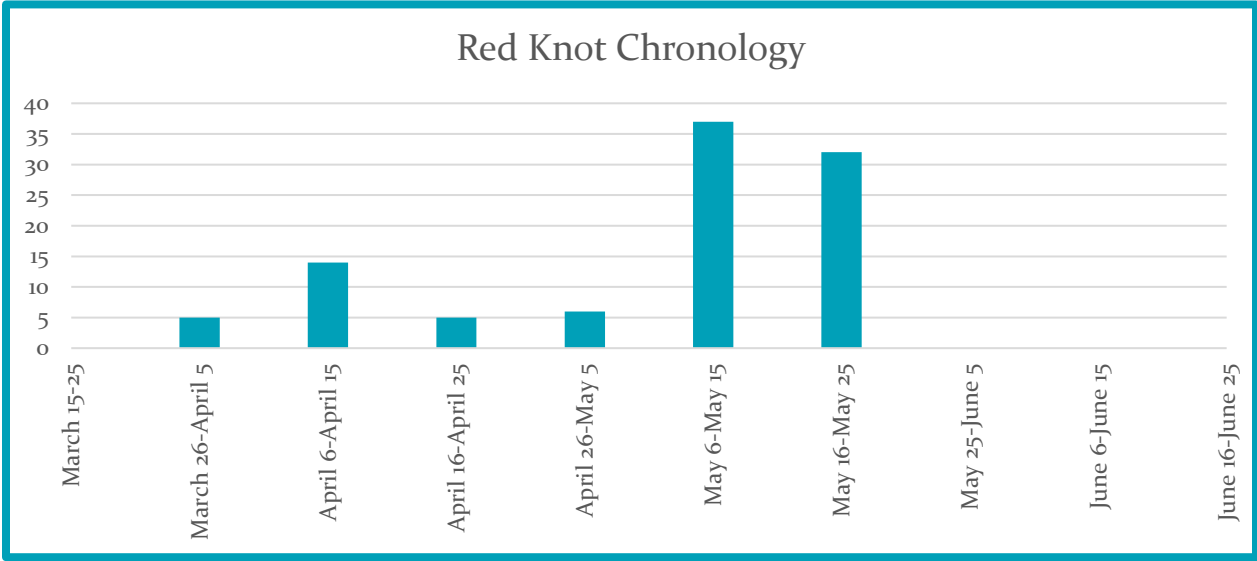
The poster child of shorebird conservation, as recent Red Knot population declines have garnered much attention. A key concern has to do with what's happening on spring migration: migrating Red Knots stage in huge numbers along the Mid-Atlantic coast where they feast on horseshoe crab eggs, a food resource that has been severely depleted by overharvest. Climate models brings 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.

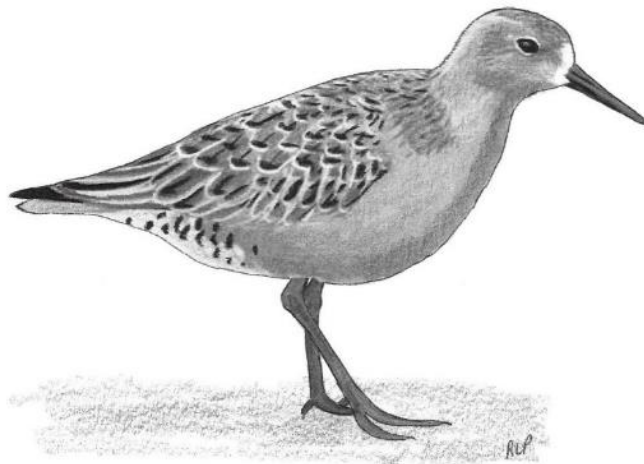
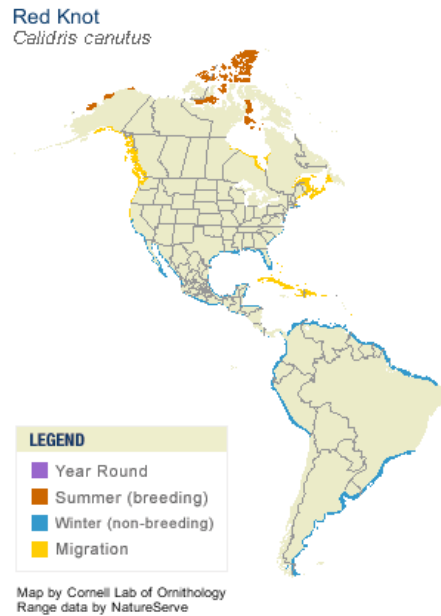
The Red Knot has a Conservation Concern Ranking of 17.





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- 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

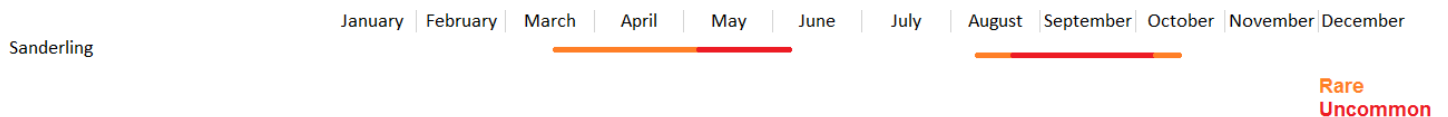
*Calidris alba*



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 several dozens. This species is not that common at Cheyenne Bottoms, only a few 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.

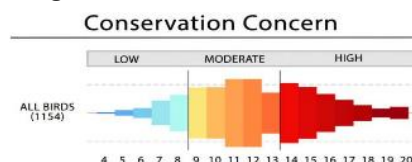
## Habitat:

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.

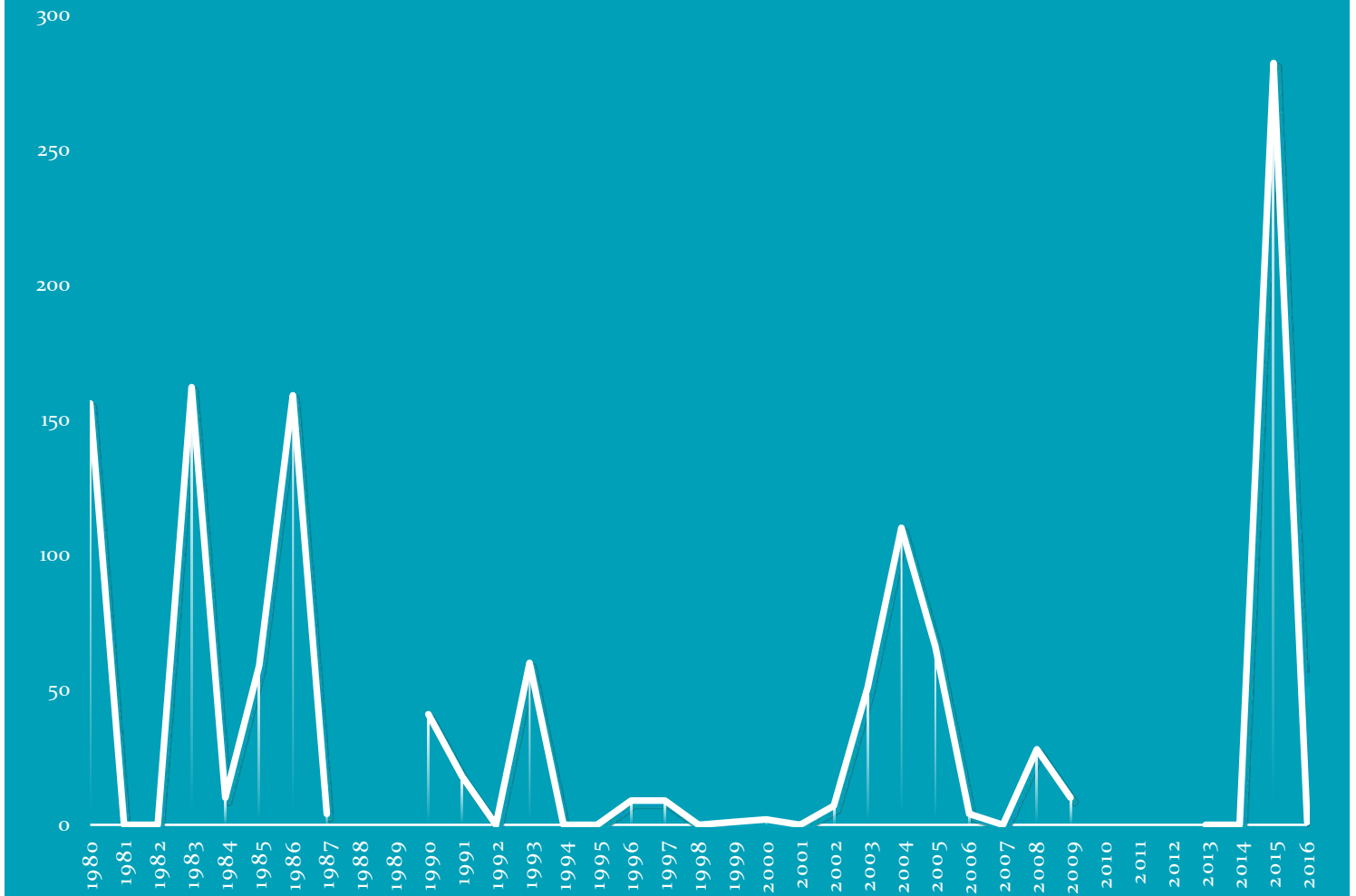
## Conservation Status:

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.

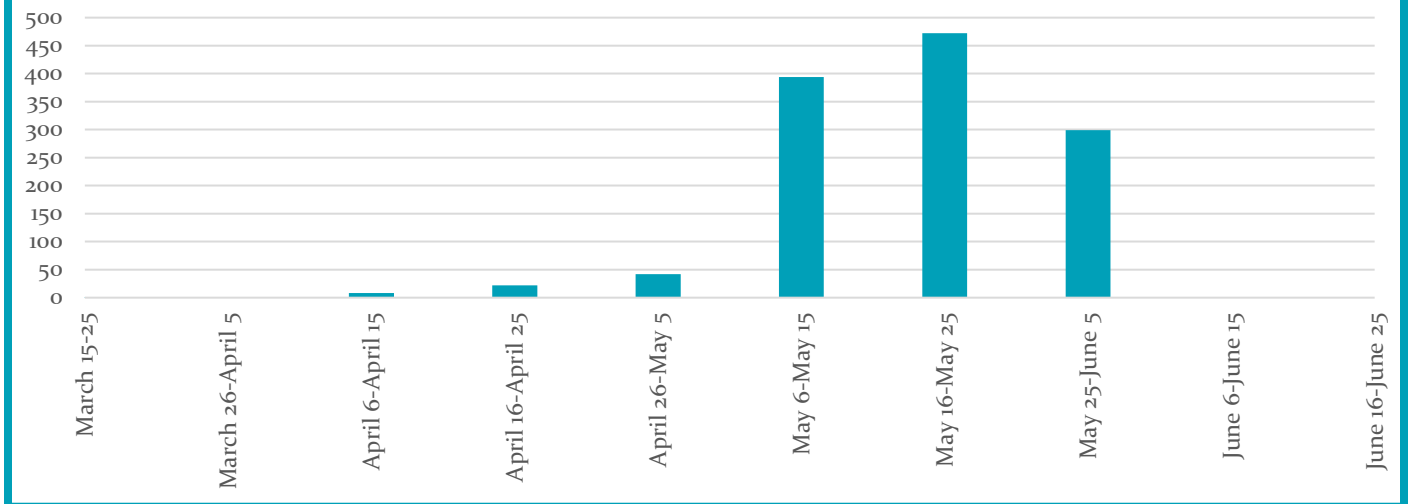


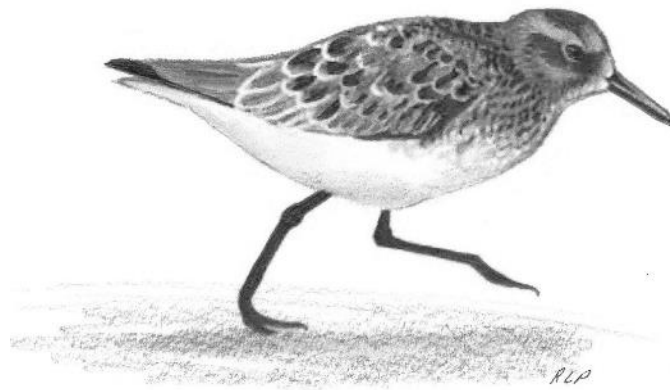
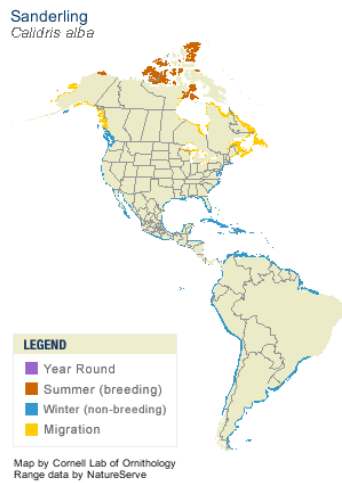
# SANDERLING



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## 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

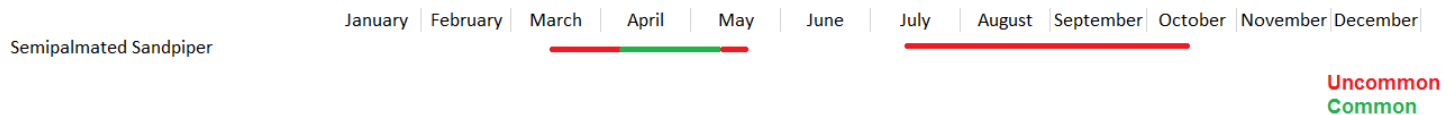
*Calidris pusilla*



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:

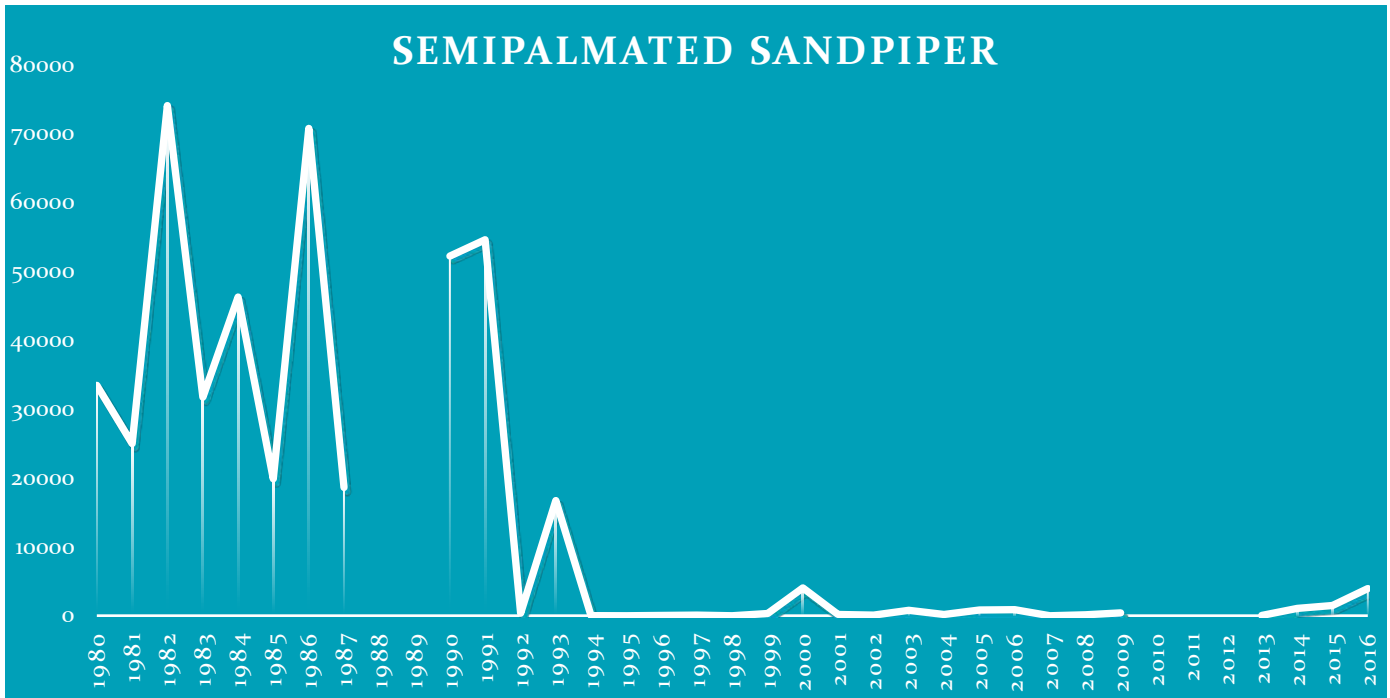
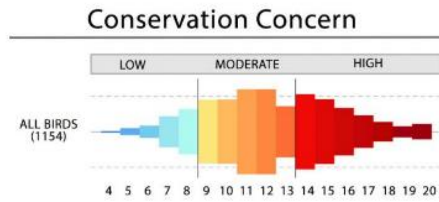
As with the other members of the "peep group", the Semipalmated Sandpiper feeds along open shorelines on wet mudflats and in shallow water with a depth of usually less than 1".

## Conservation Status:

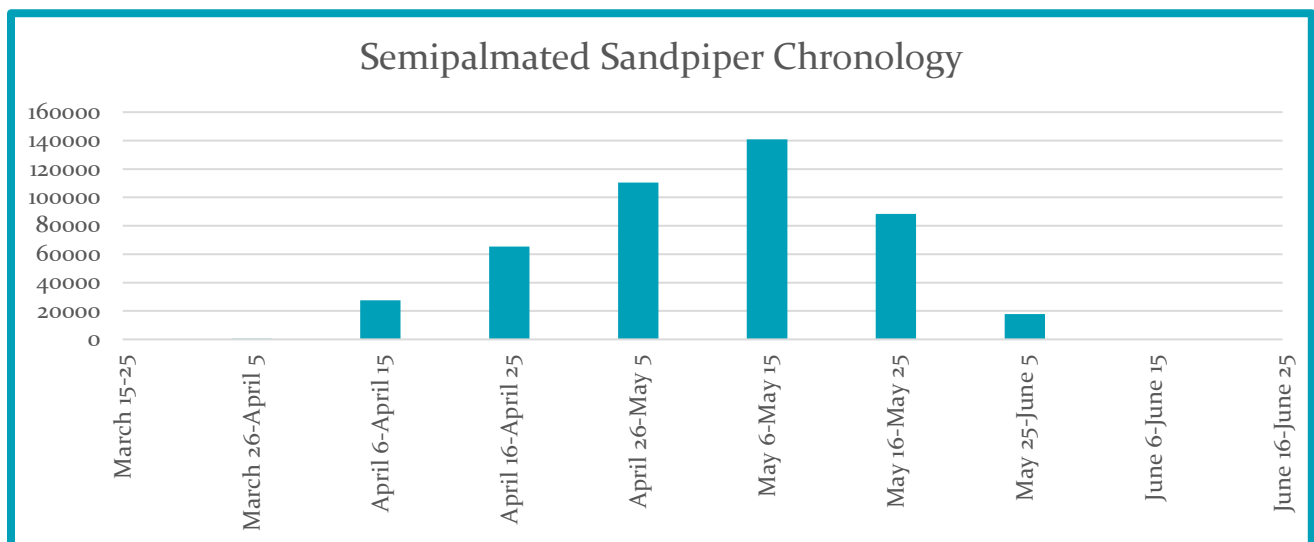
The Semipalmated Sandpiper has three North American breeding populations: western (Alaska), central (western Canadian Arctic), and eastern (eastern Canadian Arctic). Population trends have fluctuated over the last several decades. Overall, it appears that the Alaskan and central populations are currently stable, with possible increases in some areas, and 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.



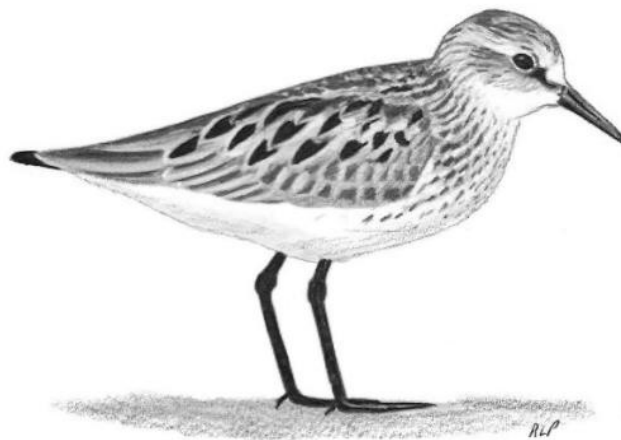
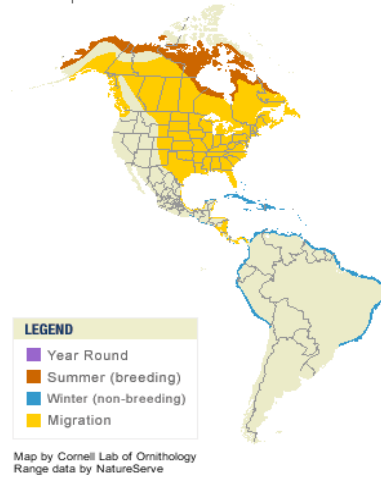
The Semipalmated Sandpiper has a Conservation Concern Ranking of 14.



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012.  
 In addition, the survey protocol during the 80's was slightly different than what is used today.  
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 the numbers might be slightly inflated due to double counting when survey days were too close together.



Semipalmated Sandpiper  
*Calidris pusilla*



- 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 vis versa.

### 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.

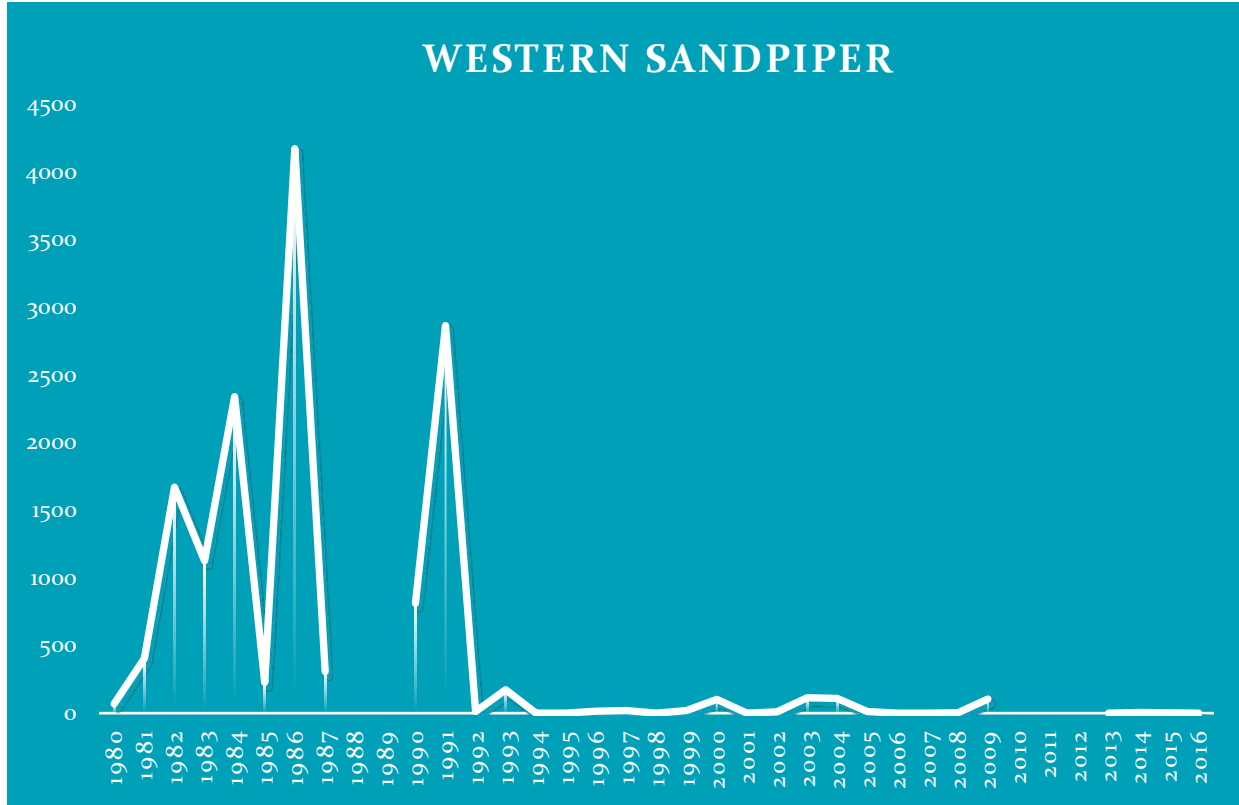
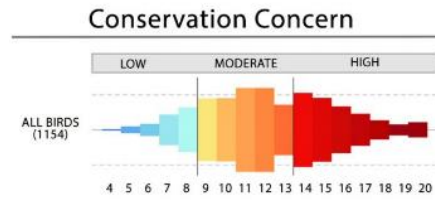
### Habitat:

The Western Sandpiper prefers to feed along open shorelines and on wet mudflats and in shallow water up to about 1 ½ inches deep.

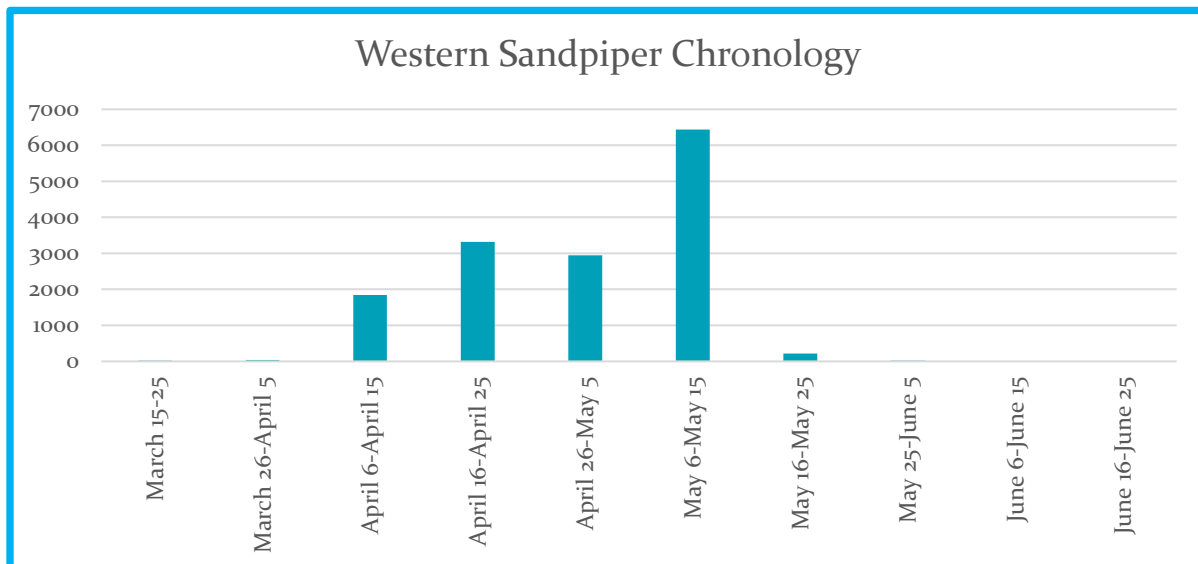
### Conservation Status:

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.

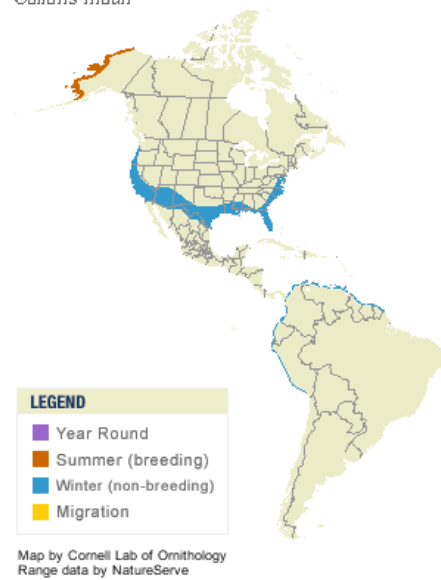
The Western Sandpiper has a Conservation Concern Ranking of 13.



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 In addition, the survey protocol during the 80's was slightly different than what is used today.  
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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.

*Calidris minutilla*



Area Status:

Least Sandpiper

Month	January	February	March	April	May	June	July	August	September	October	November	December
Least Sandpiper			Uncommon	Common	Common	Uncommon		Uncommon	Uncommon	Uncommon	Uncommon	

Uncommon  
Common

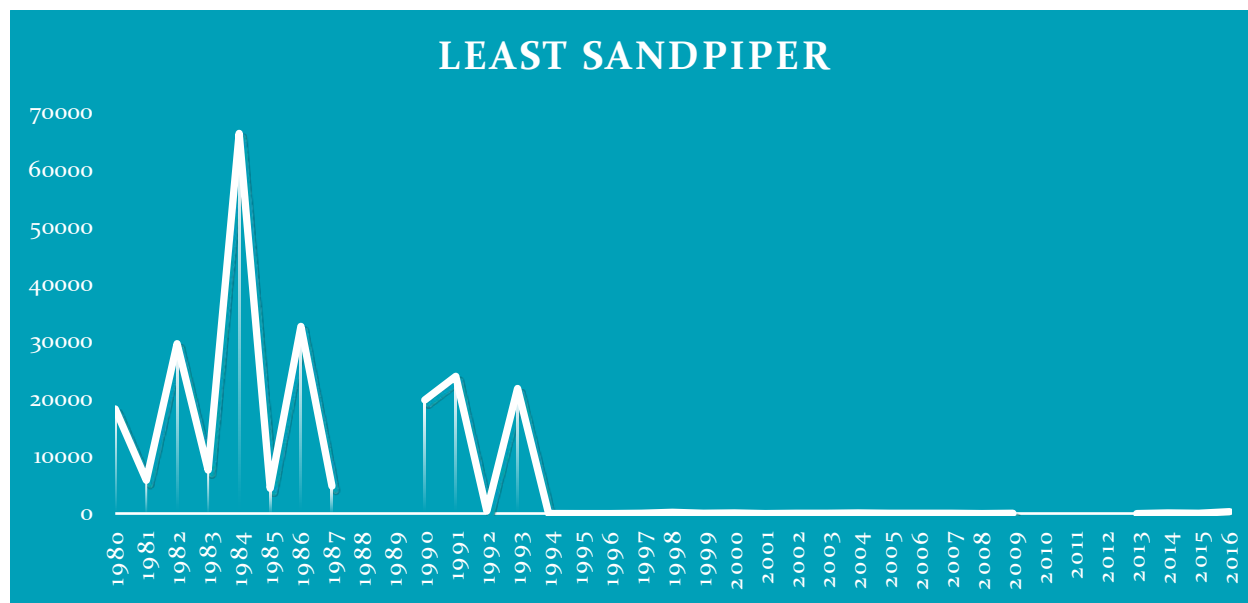
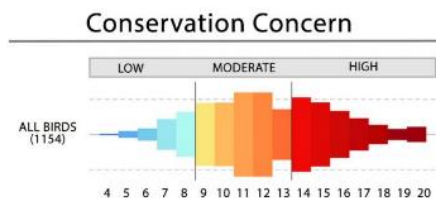
High Count:

Habitat:

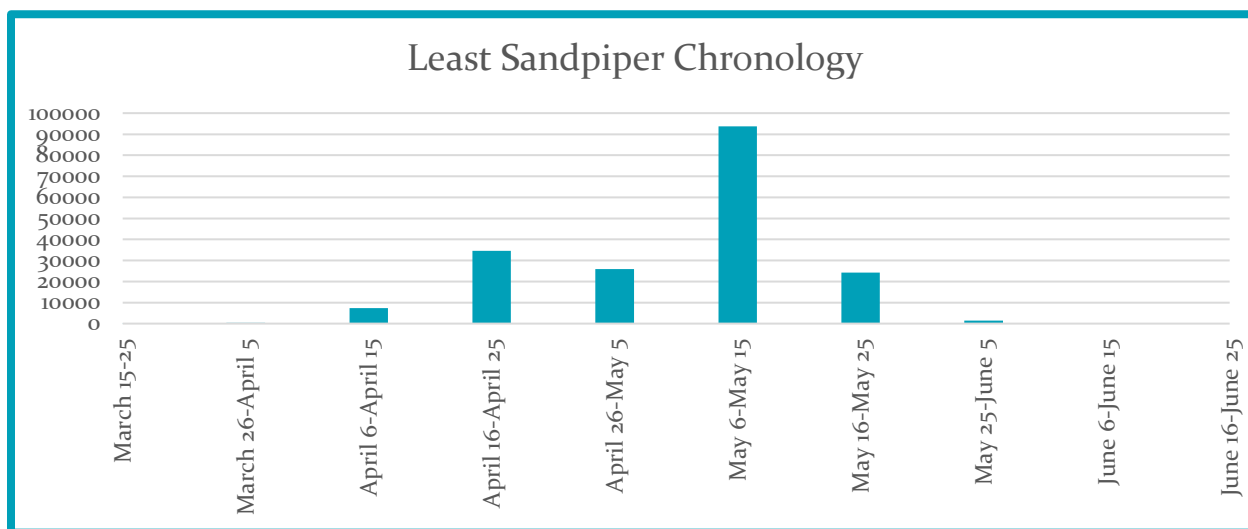
Conservation Status:

PAGE 74

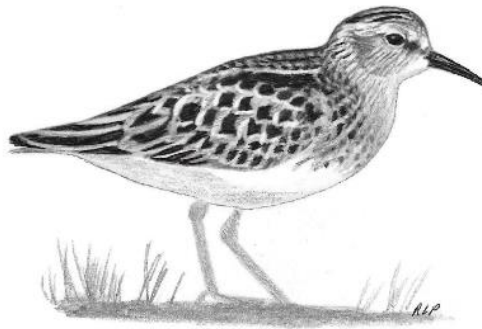
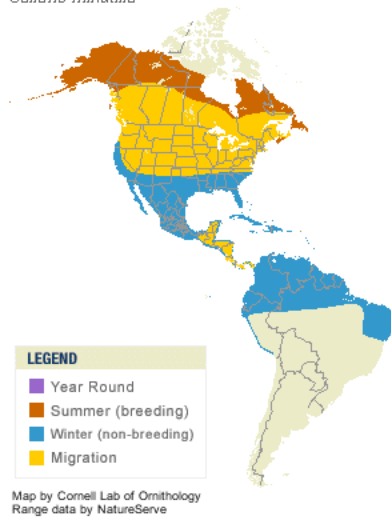
The Least Sandpiper has a Conservation Concern Ranking of 10.



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Least Sandpiper  
*Calidris minutilla*



- The Least Sandpiper is the smallest shorebird in the world, weighing in at about 1 ounce and measuring 5-6 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 released by a Nova Scotia researcher in 1985.



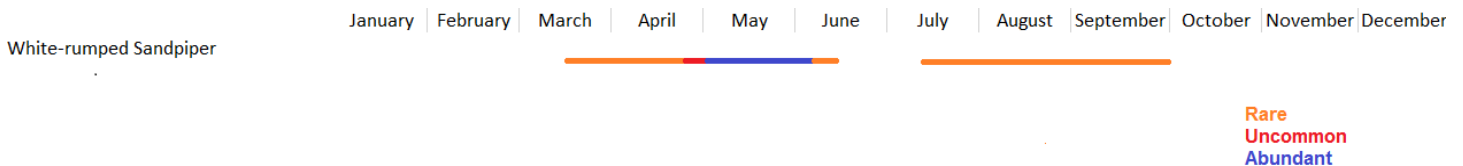
## White-rumped Sandpiper *Calidris fuscicollis*



The trademark white rump patch is usually hidden by the long wings, which are a clue to this bird's long migrations. Many fly 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.

### Area Status:

An abundant spring migrant while uncommon during fall migration. Early spring migrants may begin arriving in late March, but 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.

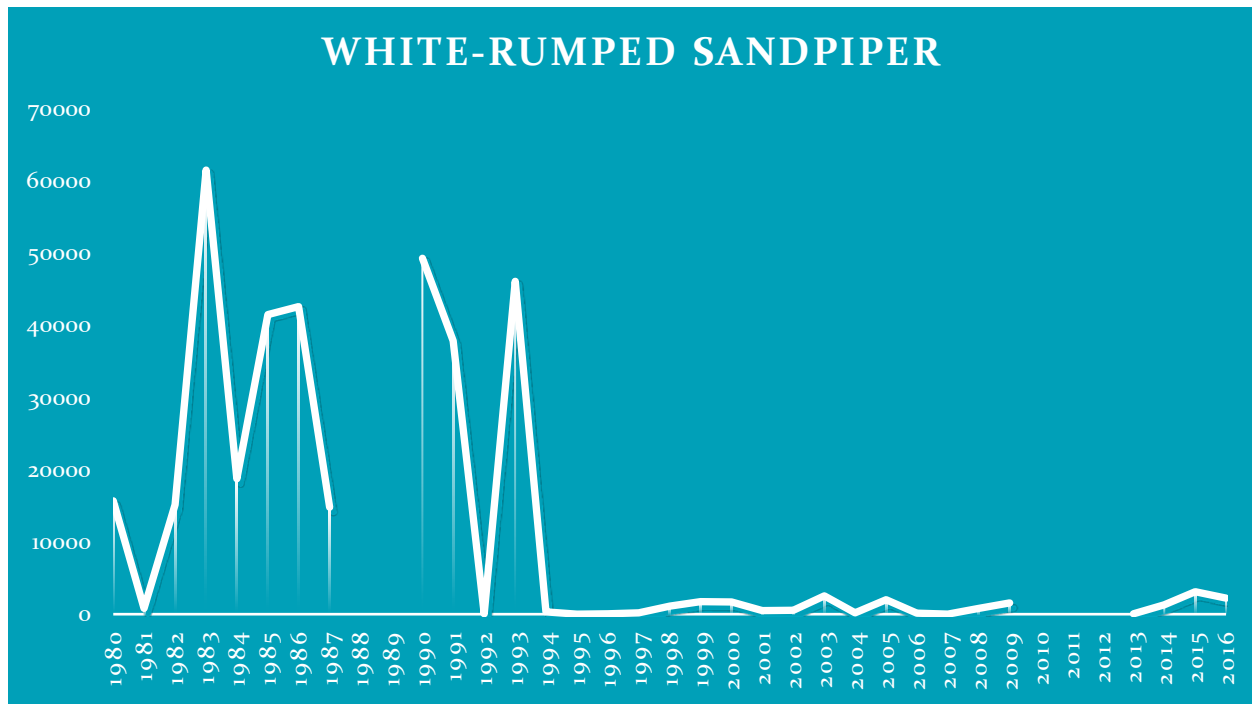
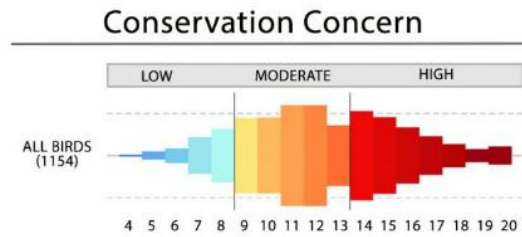
### Habitat:

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 usually is found in water no deeper than 2 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.

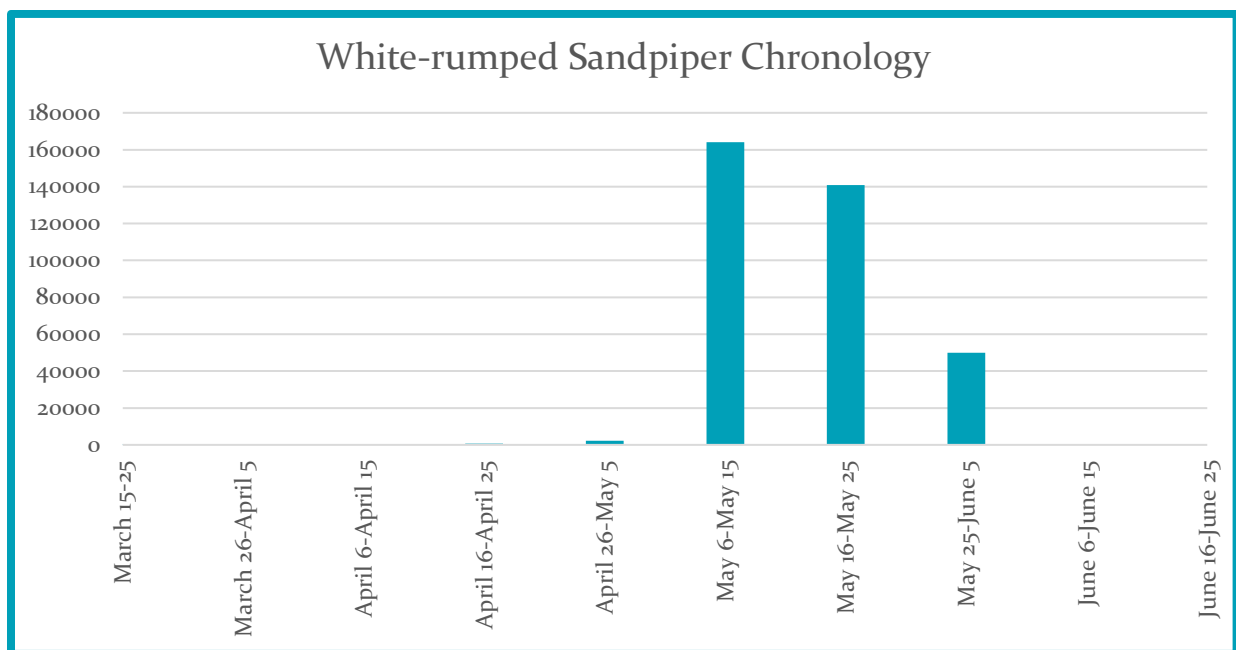
The White-rumped Sandpiper has a Conservation Concern Ranking of 13



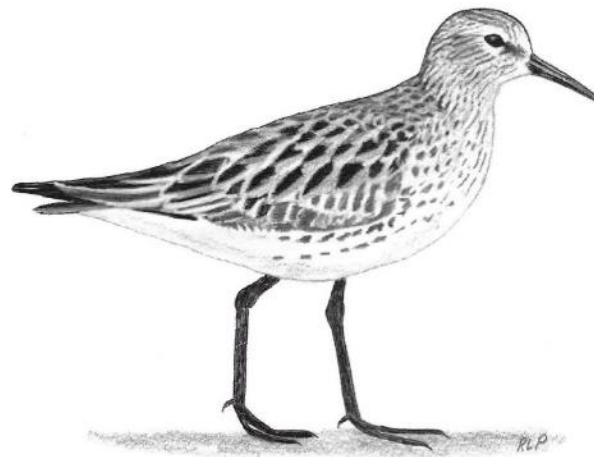
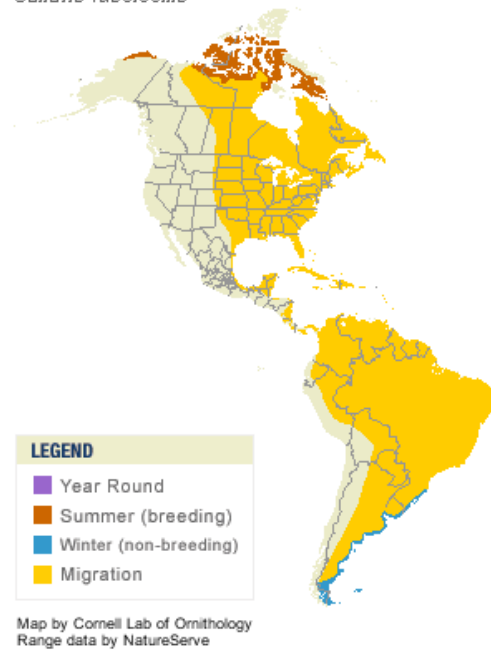
The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012

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**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 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

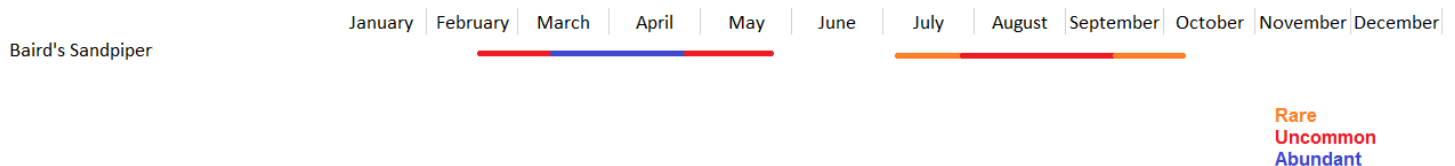
*Calidris bairdii*



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 80's and early 90's was much greater than what has been recorded since that time. This is partly because of how the surveys were done in those years, partly because shorebird numbers are on the decline and partly 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. But in 2016 the conditions were just right for the Baird's Sandpiper and the numbers recorded during the International Shorebird Survey came close to the record.

## Area Status:

The Baird's Sandpiper would be considered an abundant migrant, with records of this species arriving at Cheyenne Bottoms in February, but 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.

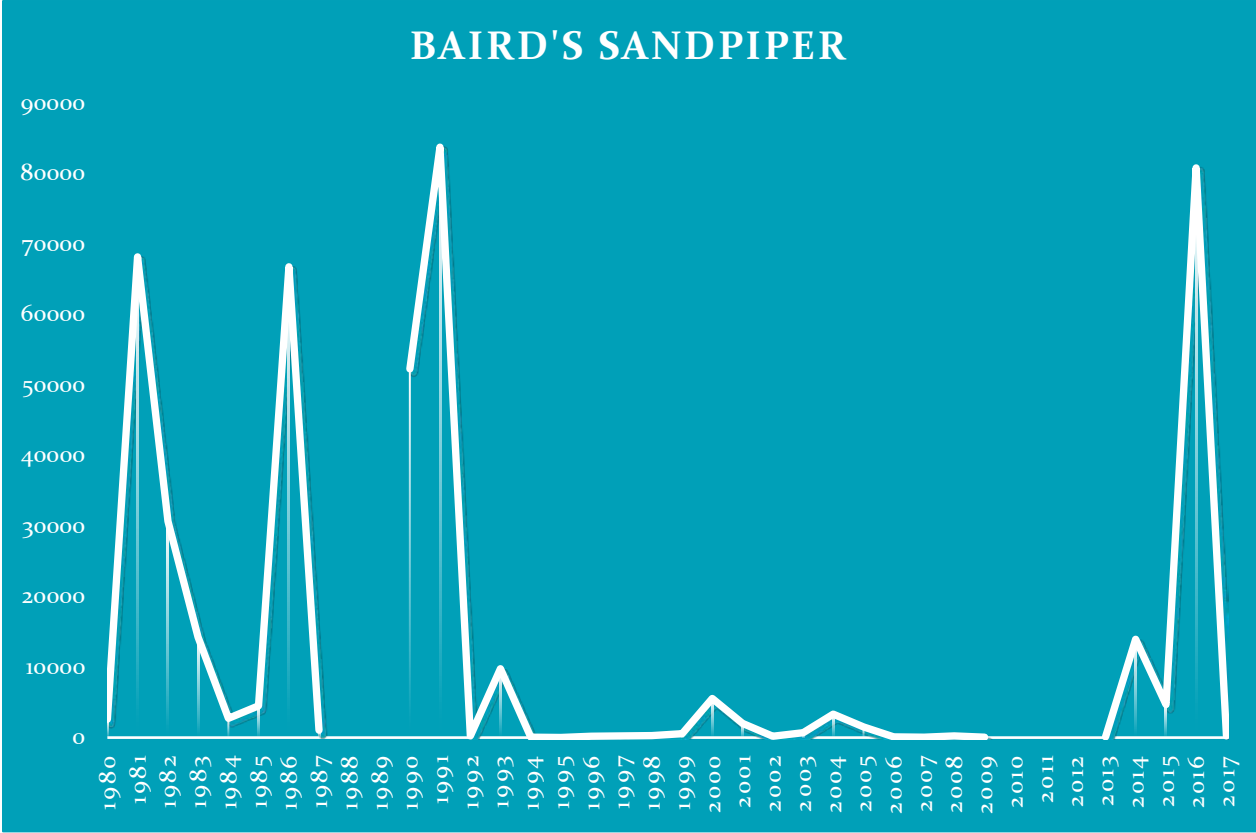
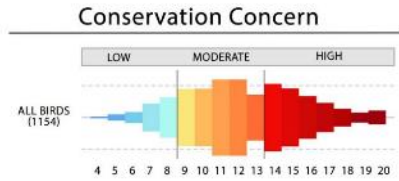
## Habitat:

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 sometime be found in grassy areas with standing water and in crop ground that has very little standing vegetation.

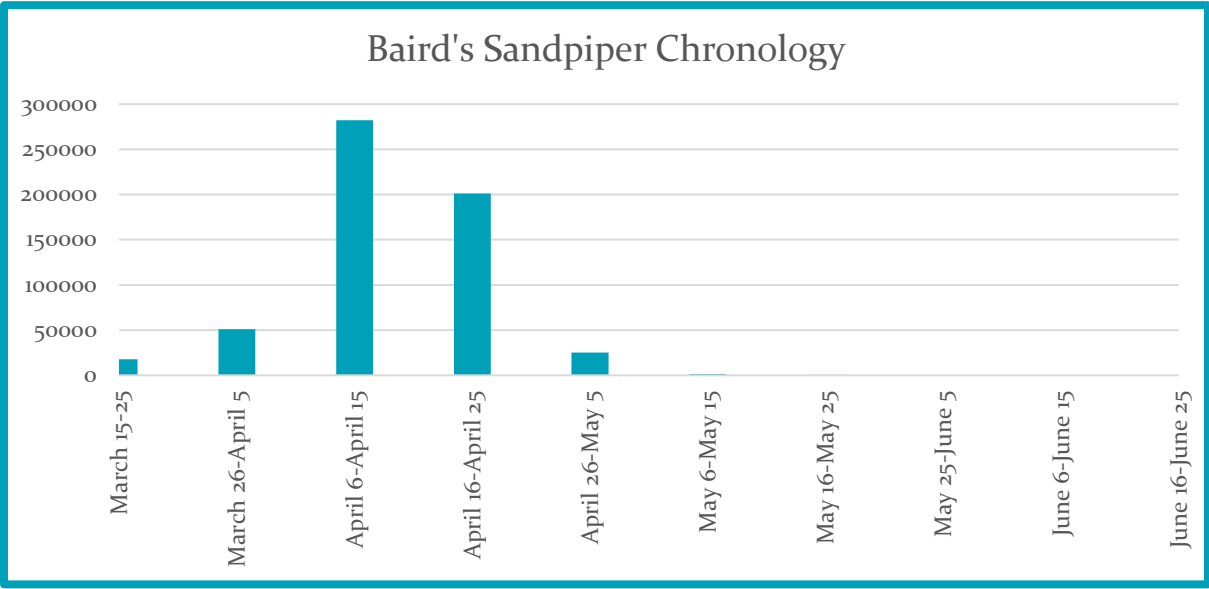
## Conservation Status:

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.

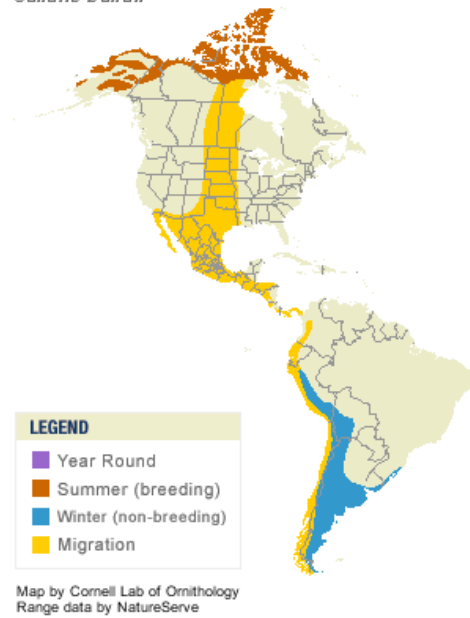
The Baird's Sandpiper has a Conservation Concern Ranking of 12.



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**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 5 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

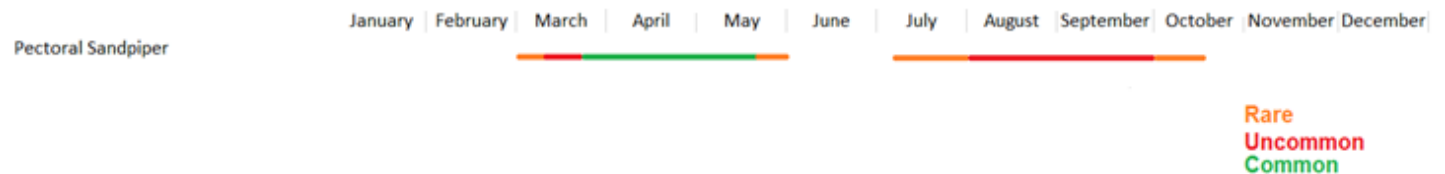
*Calidris melanotos*



The Pectoral Sandpiper is one of the members of the 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 may 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:

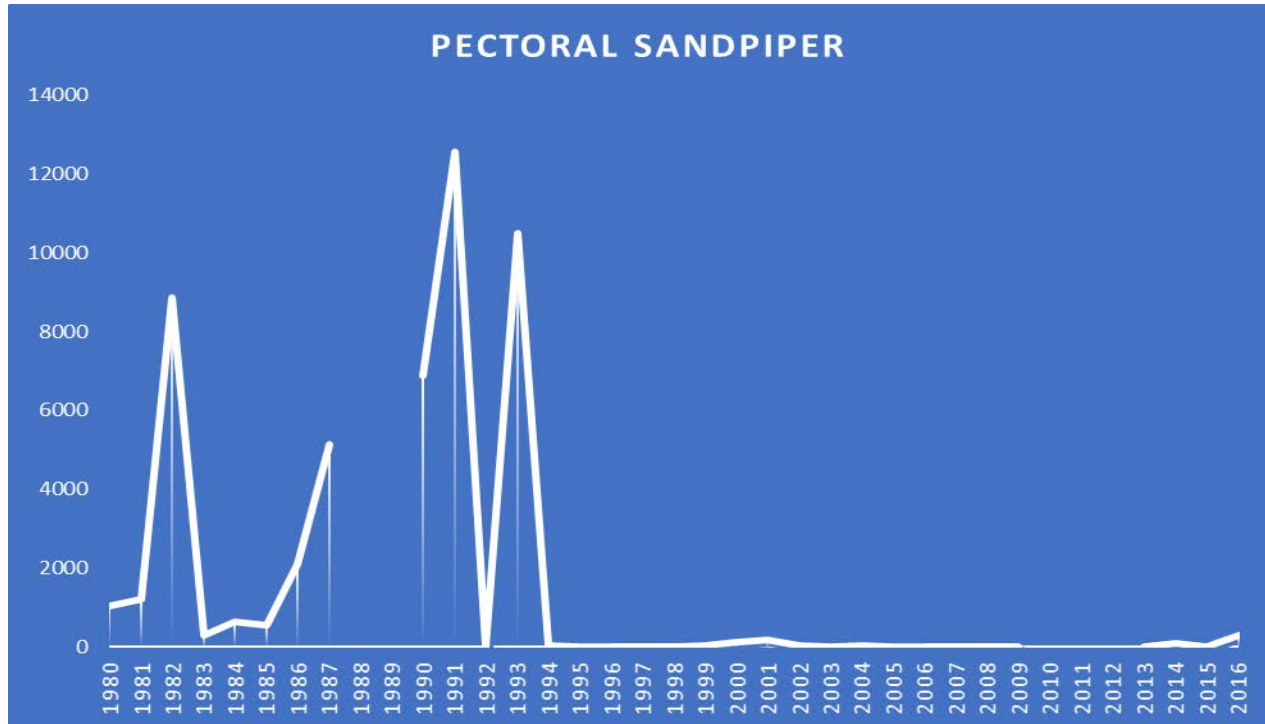
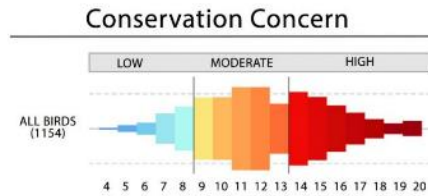
This species prefers to feed in pastures and wet grassy areas during spring migration, it will utilize mudflats, but to a lesser extent when compared to wet grassy areas. When found in water the average depth is usually only around 1 inch.

## Conservation Status:

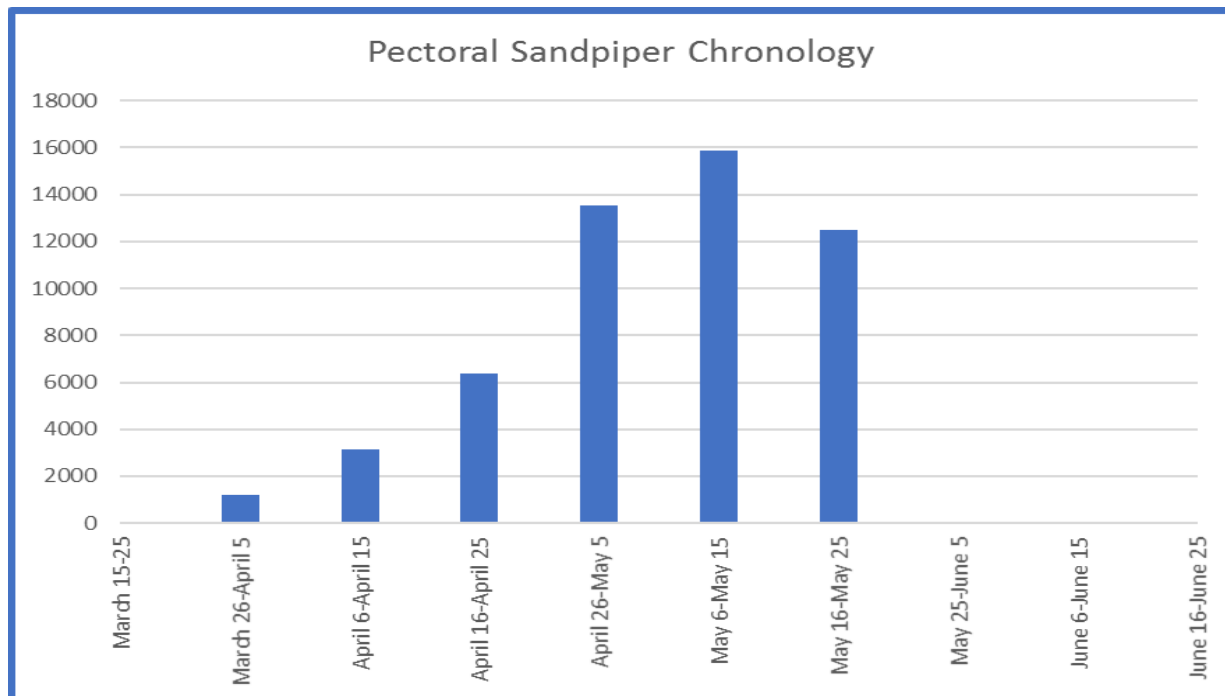
Pectoral Sandpipers were abundant in the 19th century, but populations were markedly reduced by market hunting. There is little information on current population trends, though numbers appear to be declining. In many migration surveys, these birds occur in vegetated habitats where they can be difficult to detect, and variable numbers are often recorded. However, overall, counts have declined since the early 1980s. Pectoral Sandpiper 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.

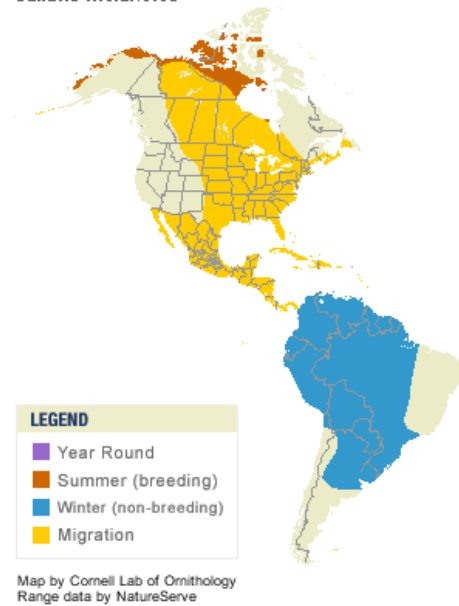


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**Pectoral Sandpiper**  
*Calidris melanotos*



- 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

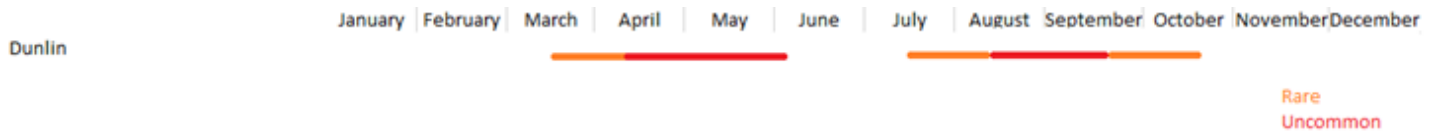
### *Calidris alpina*



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.

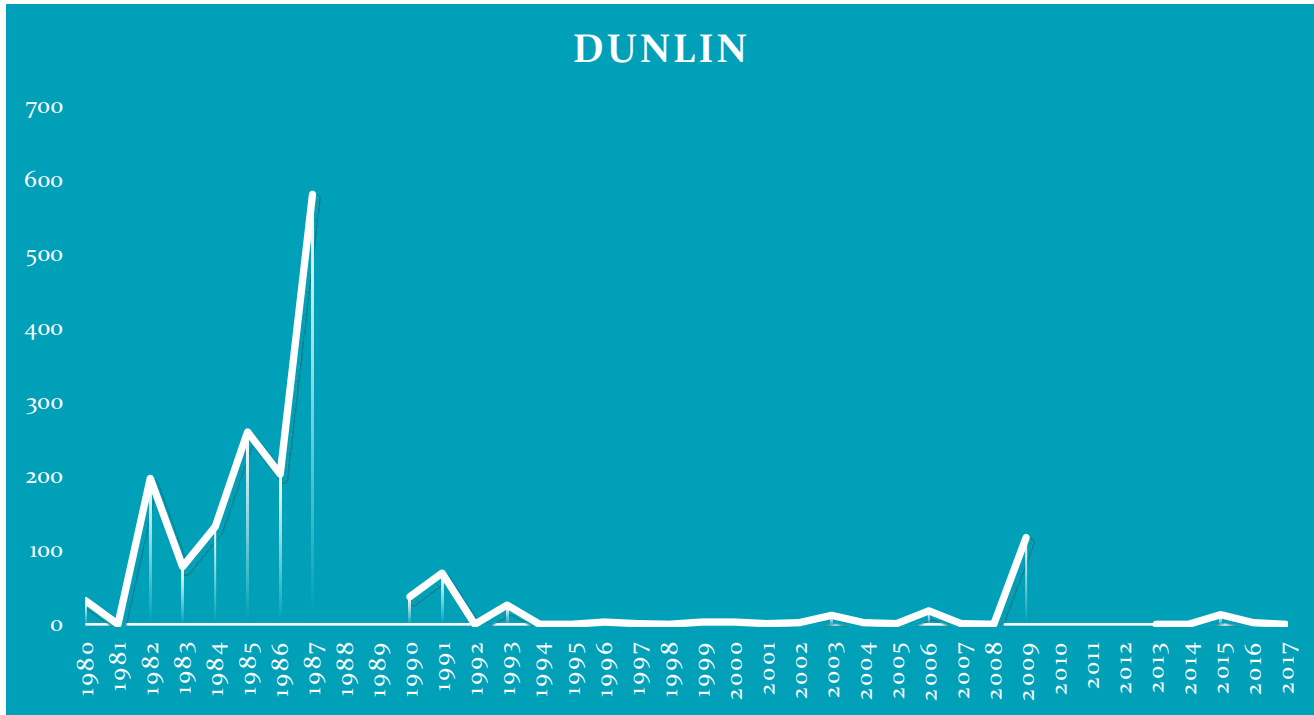
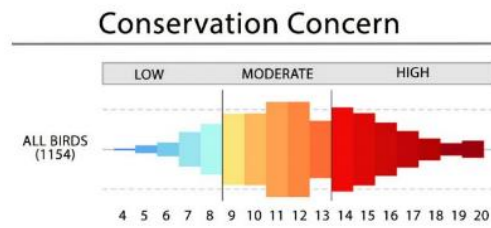
#### Habitat:

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

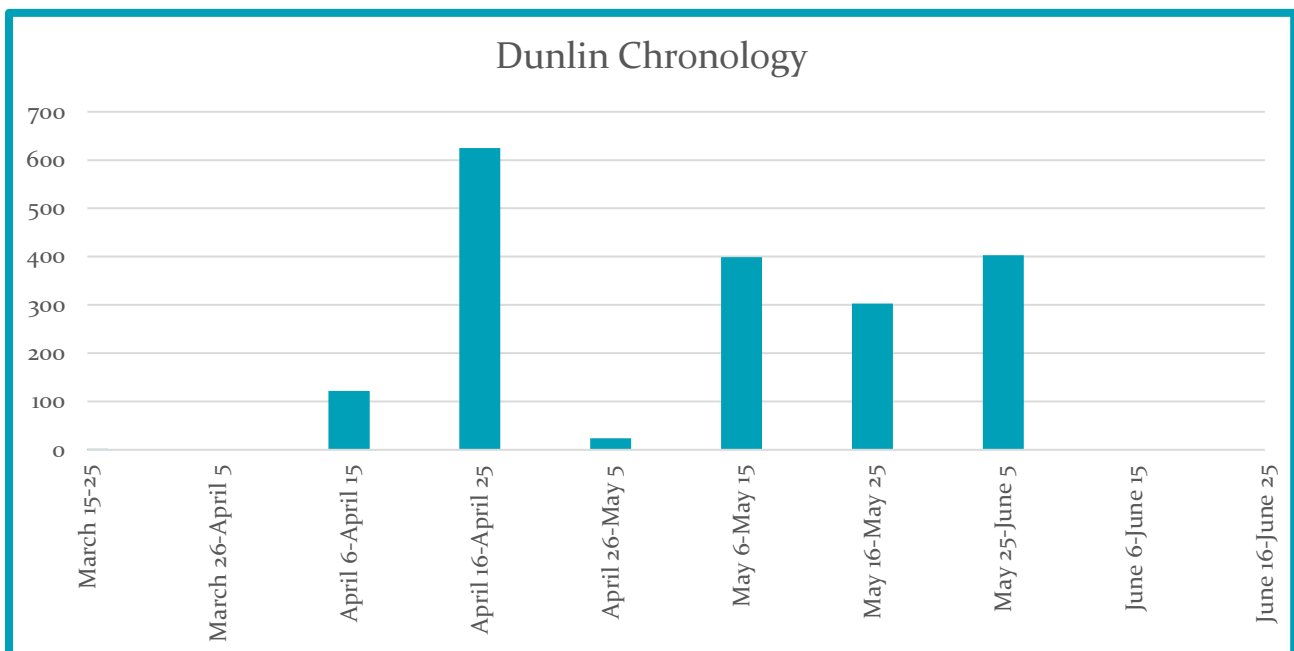
#### Conservation Status:

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.

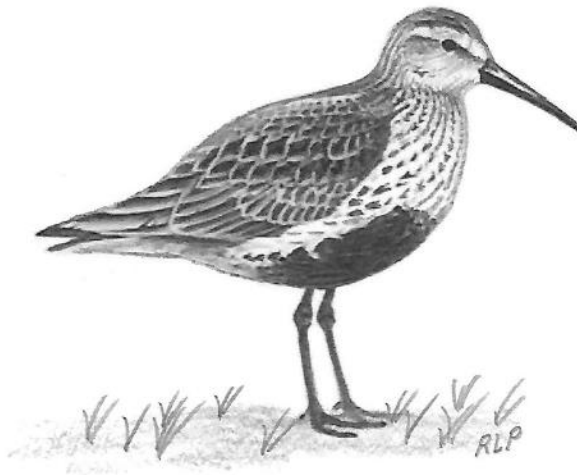
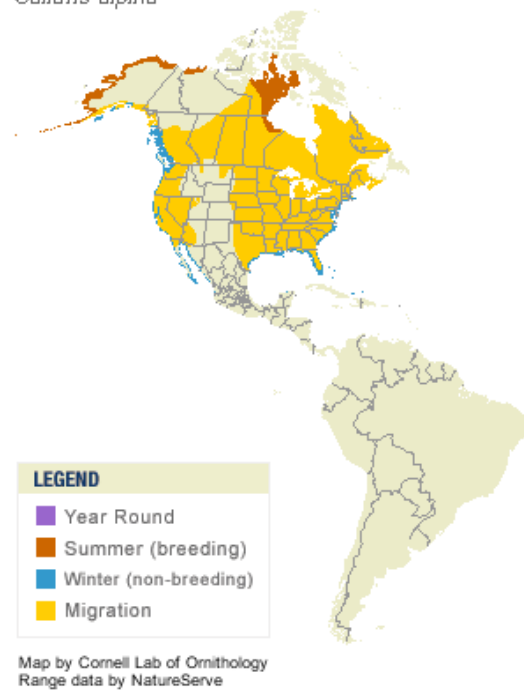
The Dunlin has a Conservation Concern Ranking of 11.



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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 sixties and early seventies. It is a Eurasian species that is a rare but a few have been recorded annually along the Atlantic coast, but much less frequent elsewhere. This species has not been recorded on the International Shorebird Survey.

### High Count:

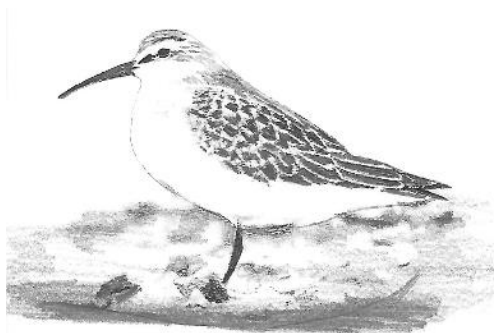
1 was reported in June of 1972.

### Habitat:

Tidal flats, beaches; wet tundra in summer. In migration, found in places where other small sandpipers congregate, including mudflats and beaches along coast, 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 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

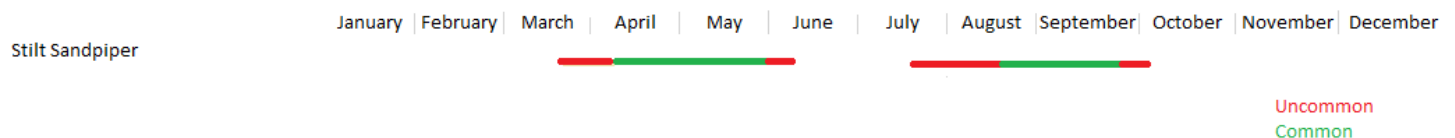
*Calidris himantopus*



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.

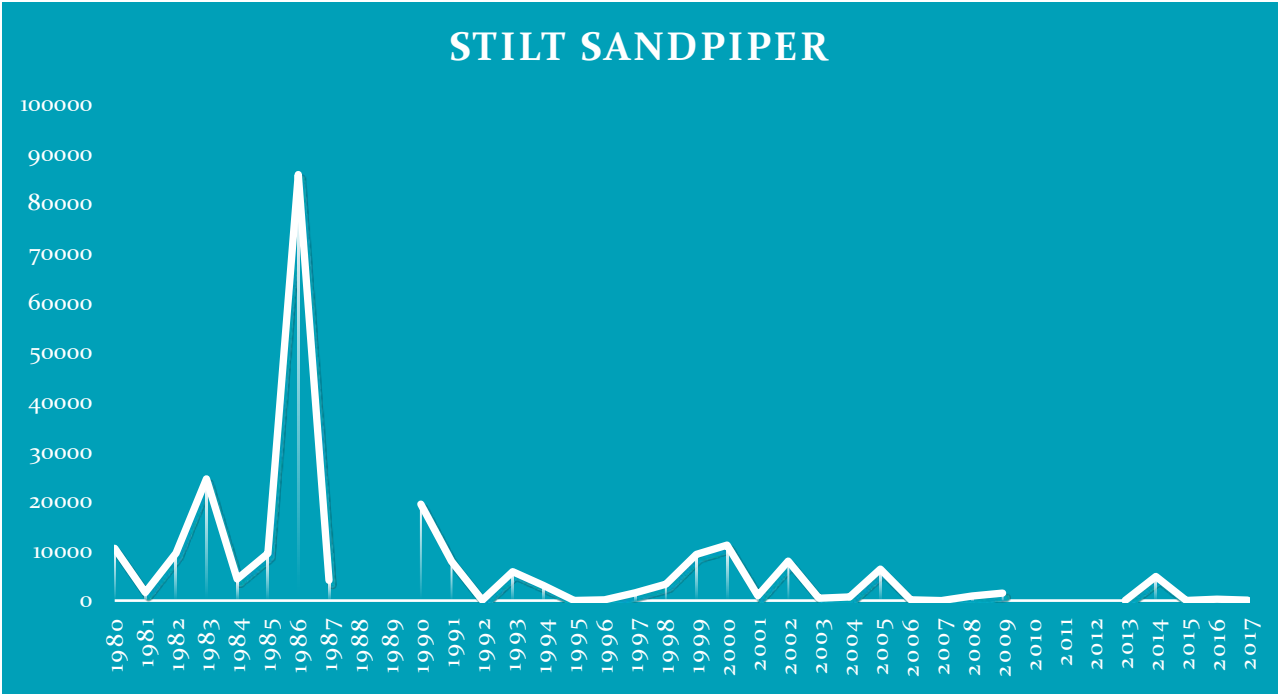
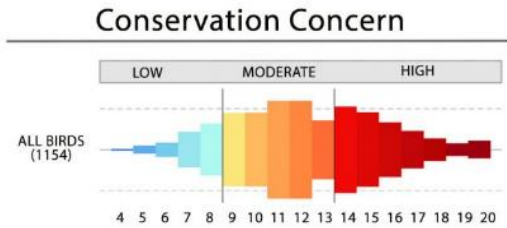
## Habitat:

The Stilt Sandpiper seems to prefer to feed in vegetation free, shallow water areas such as mudflats, flooded fields, lakeshores and marshes. Usually 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 predicts a 52 percent loss of current winter range, with a broad expansion northward predicted. 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.

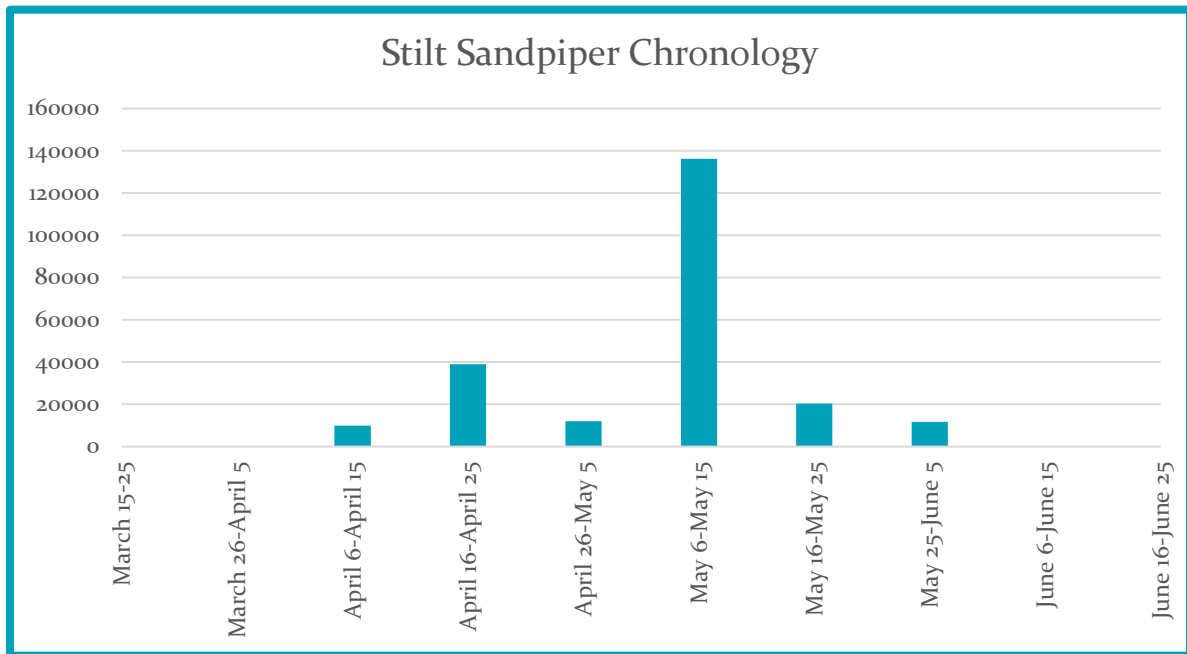
The Stilt Sandpiper has a Conservation Concern Ranking of 12.



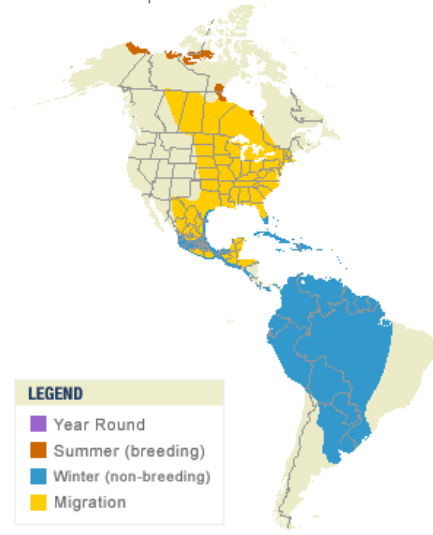
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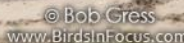
Stilt Sandpiper  
*Calidris himantopus*



- 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.



***Calidris subruficollis***



Area Status:

Buff-breasted Sandpiper

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

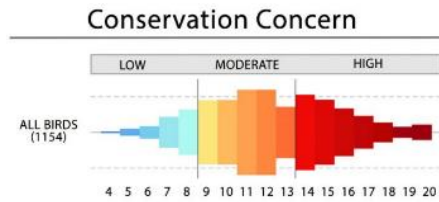
Rare

10 were recorded in May of 1980.

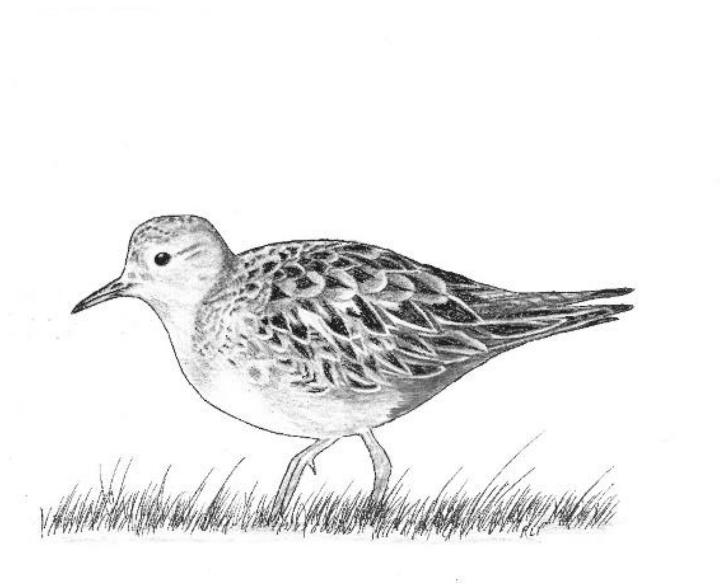
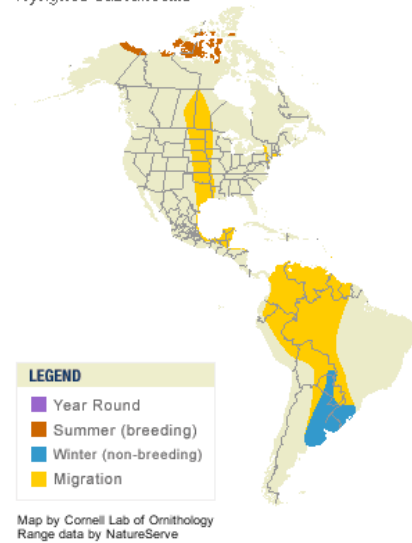
It prefers recently burned prairie and pastures of the Flint Hills, but at Cheyenne Bottoms it can be found in wet meadows, plowed fields, sparse stubble fields and on dry mudflats and especially in hayed grassland. This sandpiper is mostly a terrestrial gleaner, extracting insects such as grasshoppers, crickets and locust from the soil surface. Its prefers to feed in dry areas that either have no vegetation or the vegetation is short and sparse.

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



**Buff-breasted Sandpiper**  
*Tryngites subruficollis*



- 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 1980's and the most recent sightings was in April of 2004. The photograph above is the bird seen in 2004. The Ruff is a Eurasian species that is a rare but somewhat regular migrant 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:

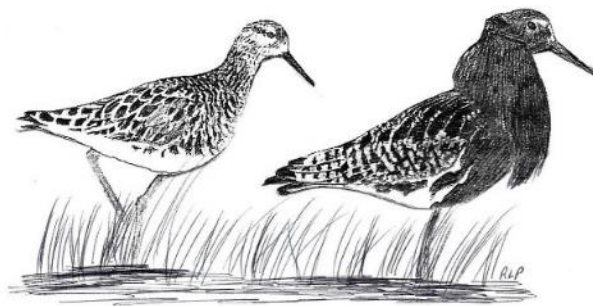
1 in April of 2004.

### 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, in 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 trend 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.



***Limnodromus griseus***



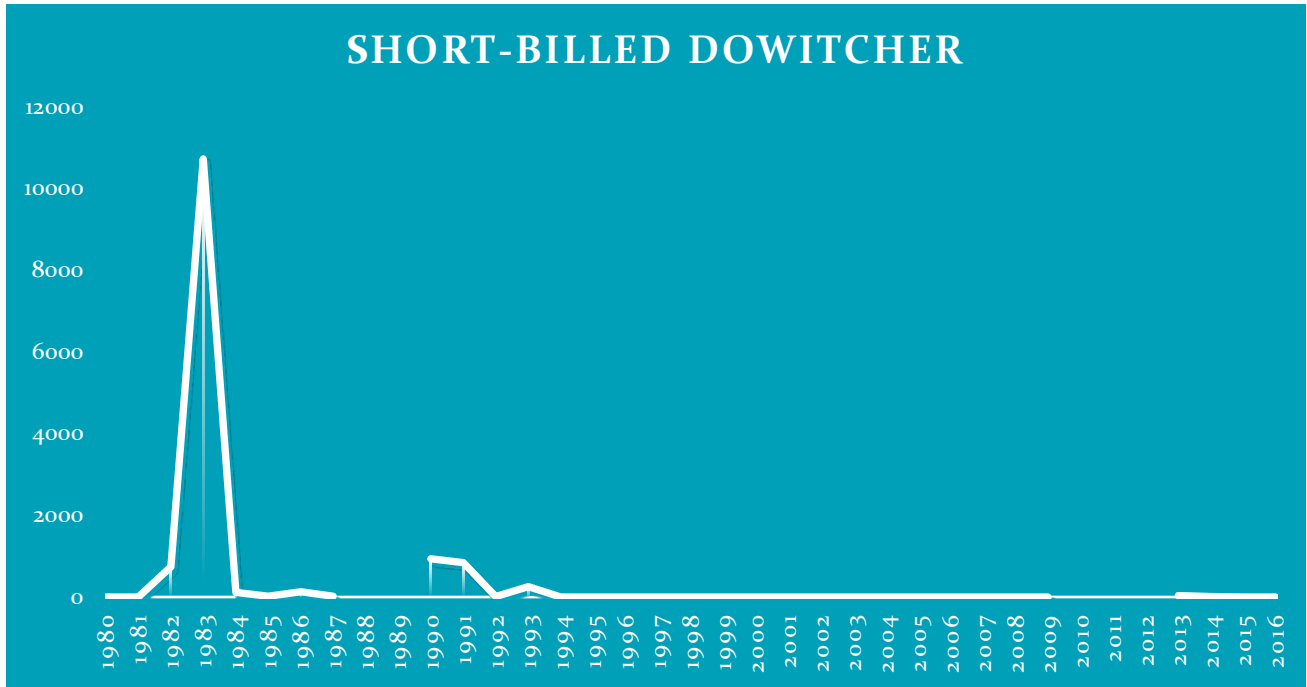
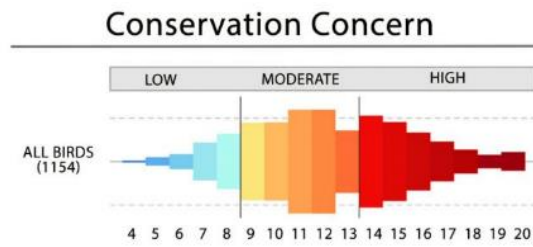
Area Status:

Rare

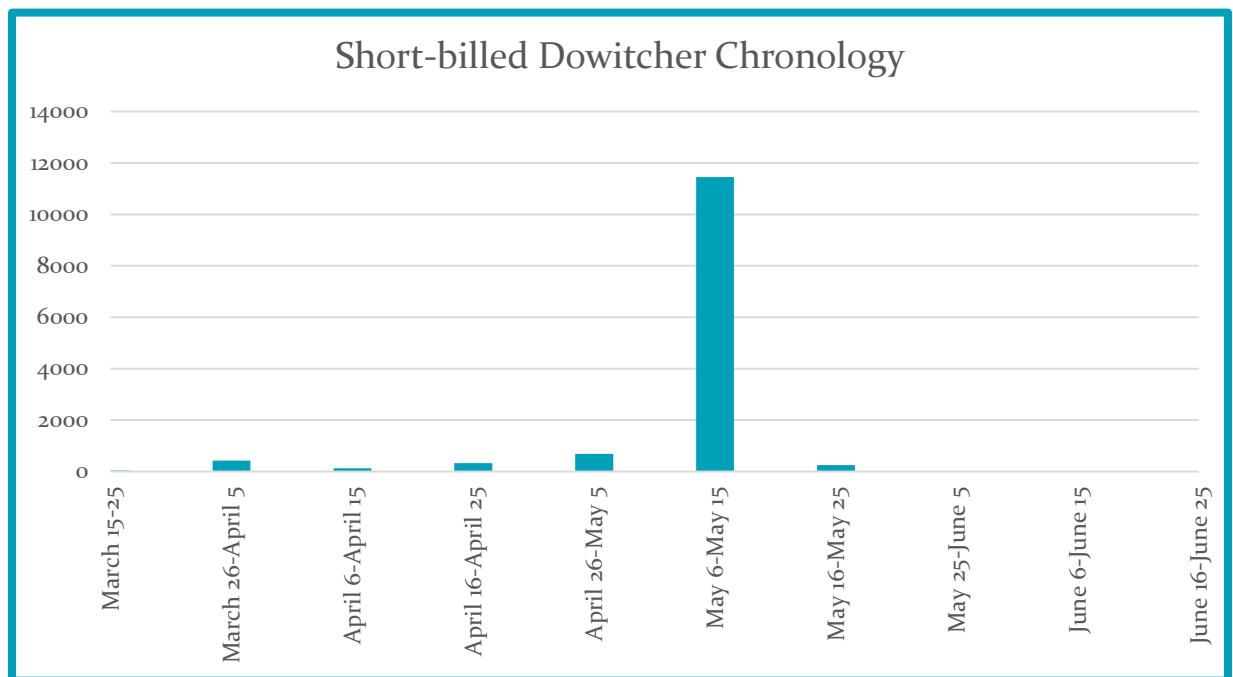
Conservation Status:

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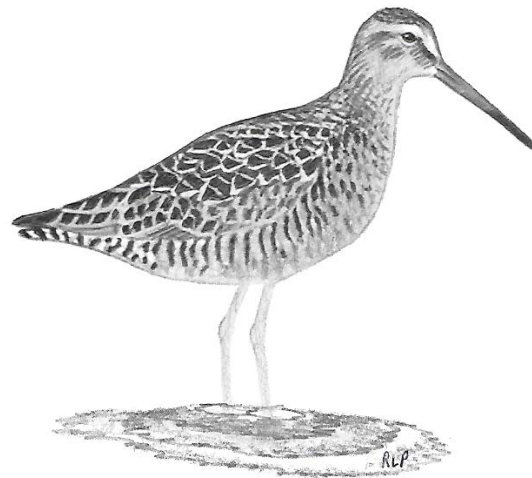
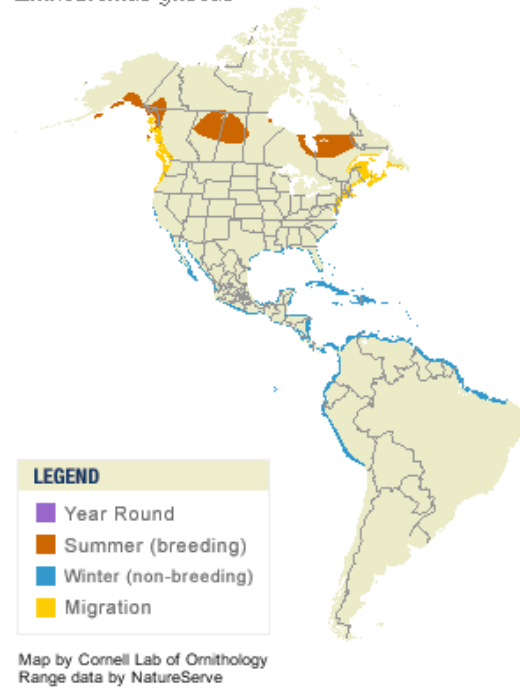
The Short-billed Dowitcher has a Conservation Concern Ranking of 14.



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012.  
 In addition, the survey protocol during the 80's was slightly different than what is used today.  
 The survey dates were more frequent than the standard every ten days that is currently used, thus  
 the numbers might be slightly inflated due to double counting when survey days were too close together.



Short-billed Dowitcher  
*Limnodromus griseus*



- The nest and eggs of this species 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.

# Long-billed Dowitcher

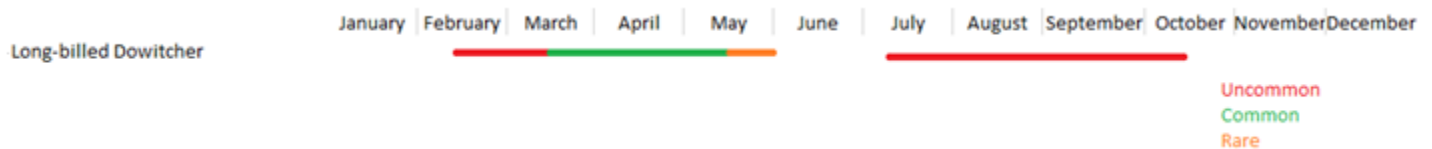
*Limnodromus scolopaceus*



The Long-billed Dowitcher is difficult to separate from the Short-billed Dowitcher, especially from a distance. I must question the International Shorebird Survey data from 1980 to 1994 which contain survey results for both species. In 1994 a new surveyor took over conducting the survey and at that time the two species were combined into “dowitcher species”. The graphs associated with the Long-billed Dowitcher most likely contain both species, although the Long-billed Dowitcher is known to be the more common of the two species at Cheyenne Bottom.

## Area Status:

This species 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>.



## High Count:

74,580 were recorded in May of 1982.

## Habitat:

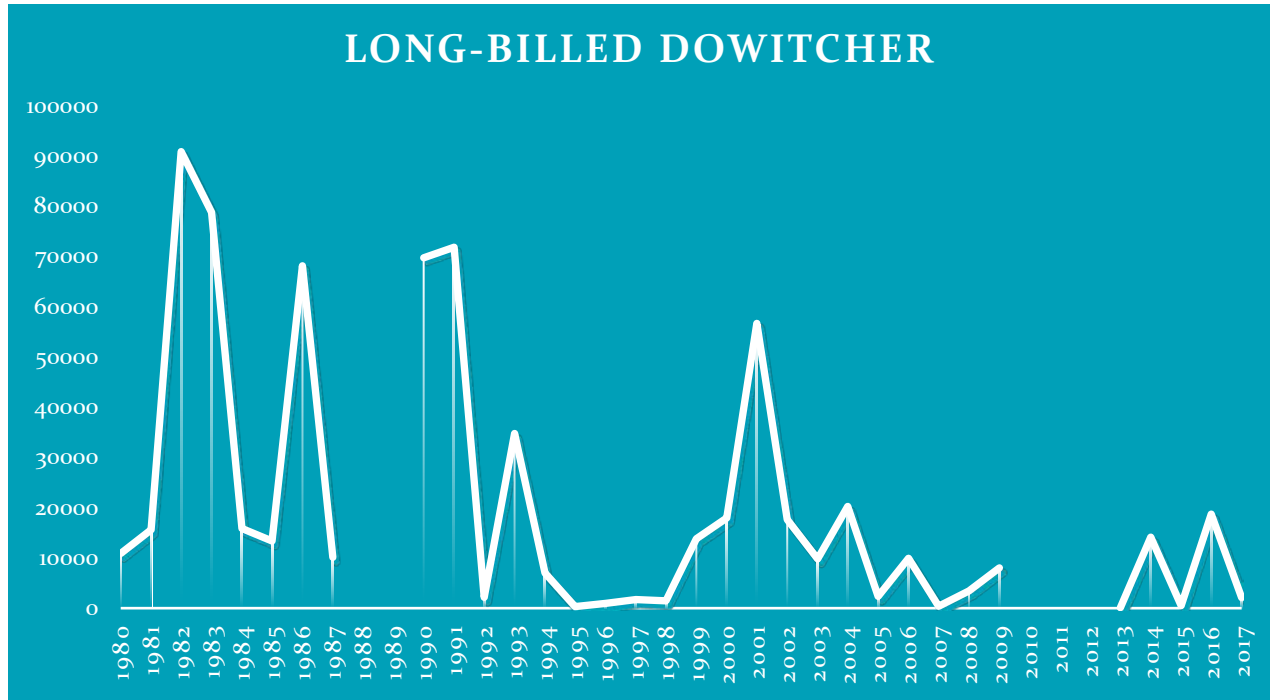
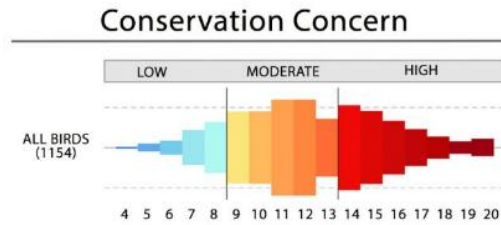
The preferred habitat for feeding is shallow water, averaging around two to three inches in depth, exposed mudflats, shorelines and grassy marshes are also use, but the soil in which they are probing for food must be soft.

## Conservation Status:

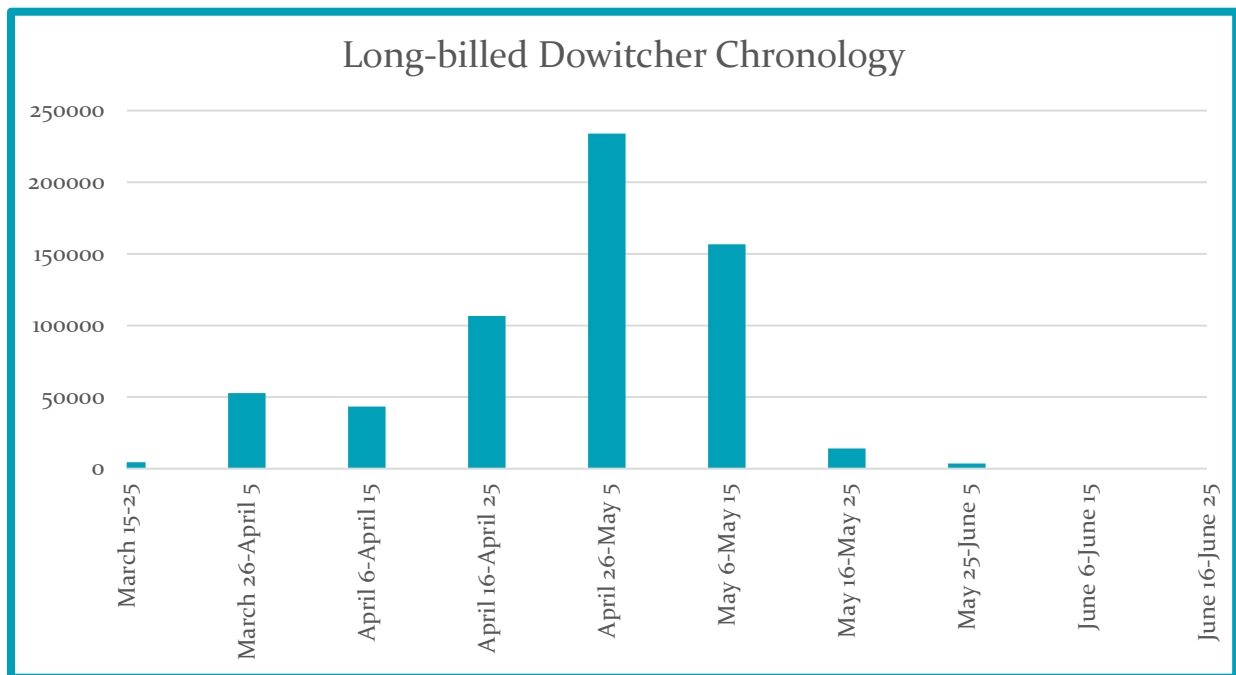
The Long-billed Dowitcher is still common and widespread. Over-hunting contributed to declines in the late 1800s and early 1900s, but protection from hunting has resulted in a rebound. Range-wide, the number of migrants has increased, and the breeding population has recently expanded into Siberia. It 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 Long-billed Dowitcher has a Conservation Concern Ranking of 13.

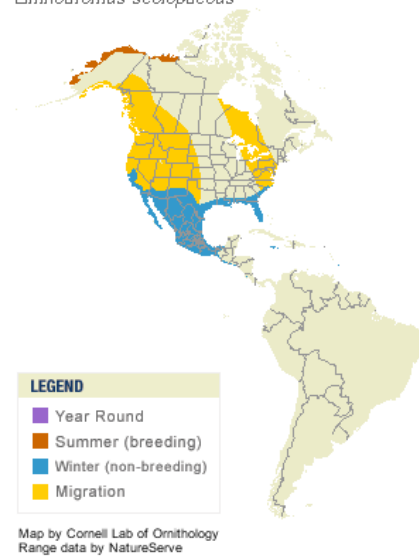


The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012.  
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 the numbers might be slightly inflated due to double counting when survey days were too close together.





Long-billed Dowitcher  
*Limnodromus scolopaceus*



- Most Siberian breeding Long-billed Dowitchers likely migrate to the Americas during the winter.
- Although both sexes share incubation of the eggs, only the male takes care of the young once they hatch.
- 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.

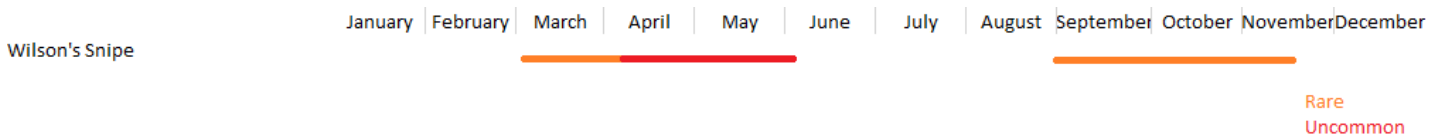
***Gallinago delicate***



The Wilson's Snipe is a shorebird that most likely is under-recorded during the International Shorebird Survey. The survey follows a predetermined route that follows 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 was 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 Bottom and in my experience, I have observed more birds in fall migration in wet meadows than I have observed during spring migration while conducting the International Shorebird Survey.



High Count:

300 were recorded in May of 1998.

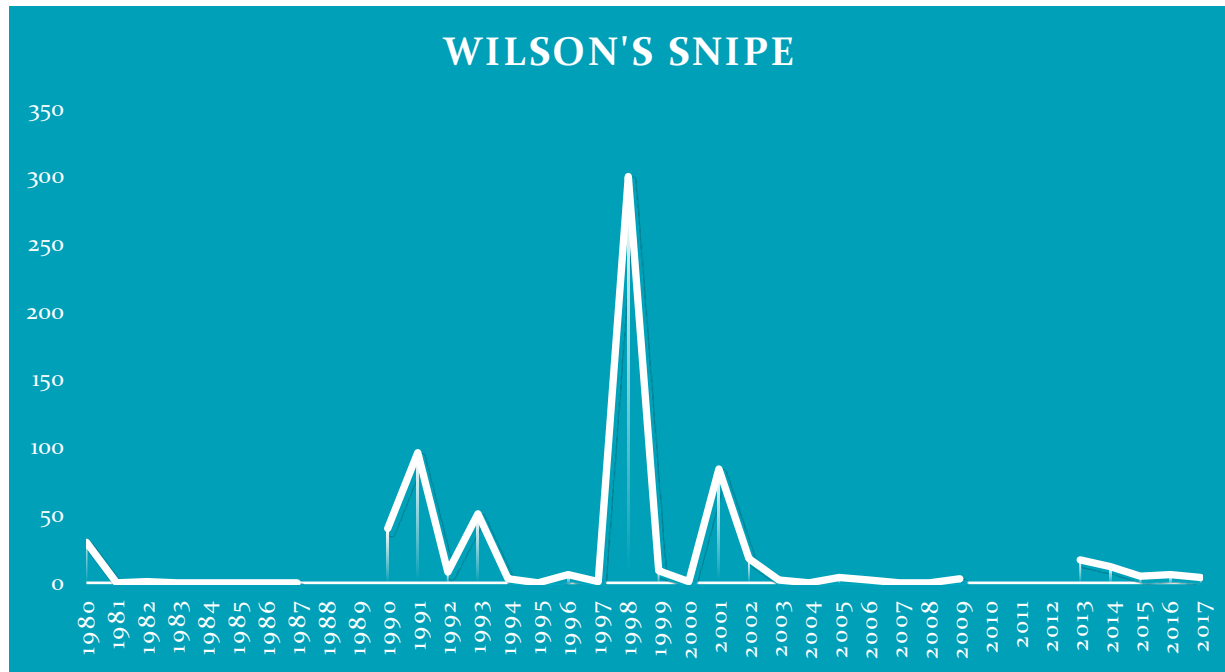
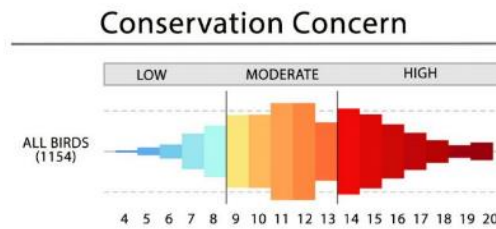
Habitat:

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

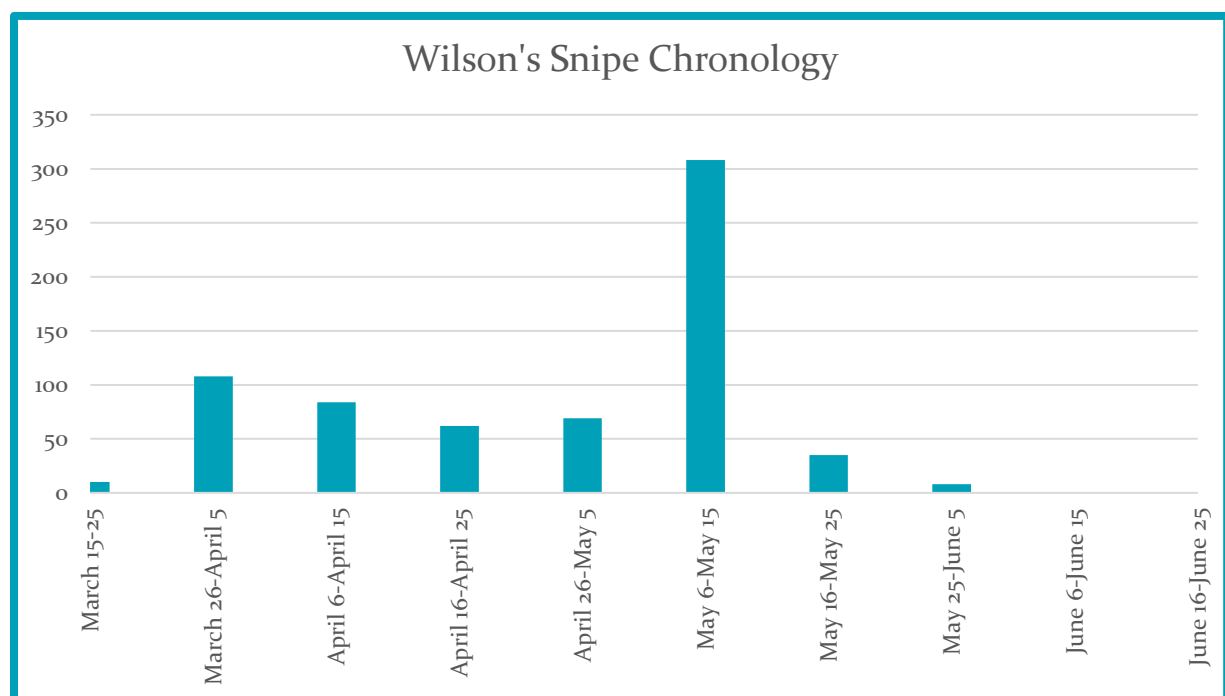
Conservation Status:

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 Snipes 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.

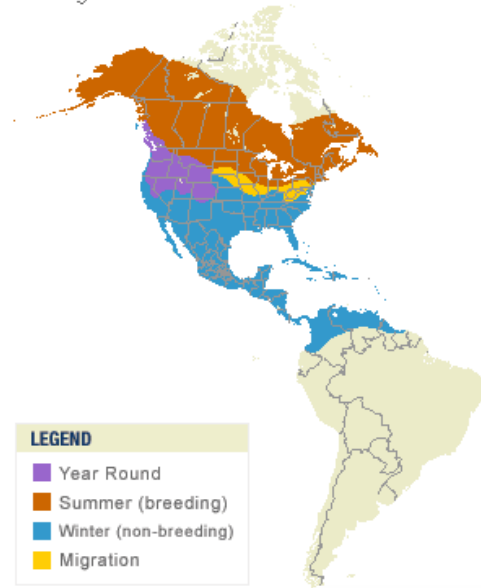
The Wilson's Snipe has a Conservation Concern Ranking of 10.



The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012. In addition, the survey protocol during the 80's was slightly different than what is used today. The survey dates were more frequent than the standard every ten days that is currently used, thus the numbers might be slightly inflated due to double counting when survey days were too close together.



Wilson's Snipe  
*Gallinago delicata*



Map by Cornell Lab of Ornithology  
Range data by NatureServe



- Wilson's Snipe look so 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 truly 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 a 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.

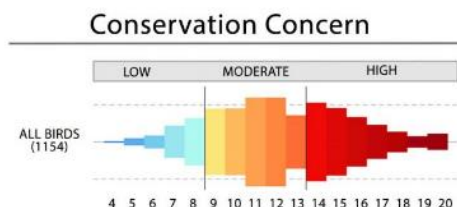
### Habitat:

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 American; including the eastern edge of Kansas.

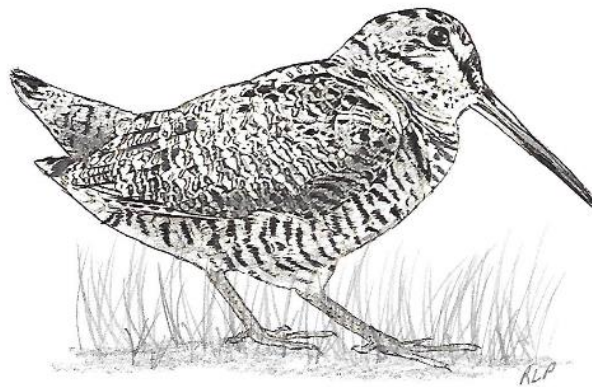
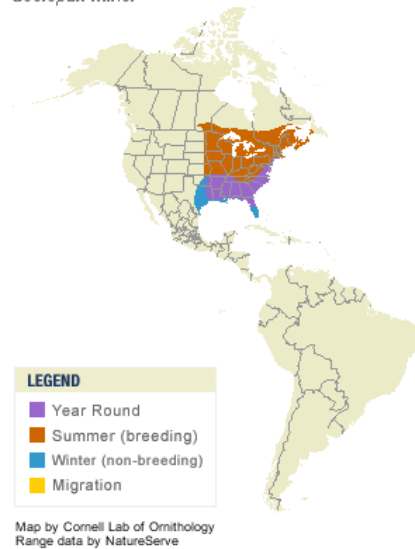
### Conservation Status:

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 shows 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

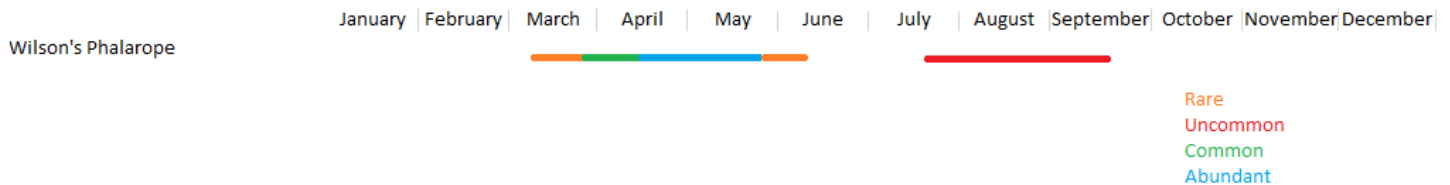
*Phalaropus tricolor*



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.

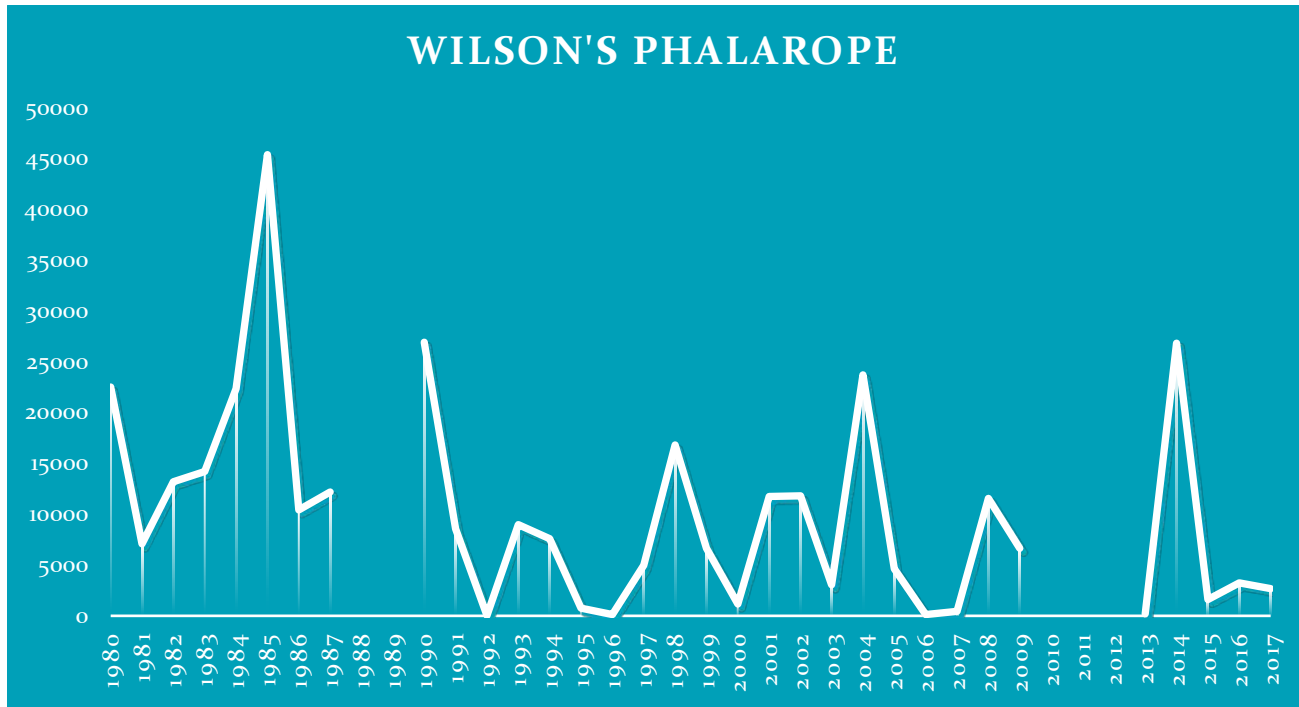
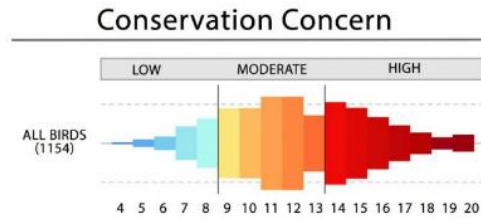
## Habitat:

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.

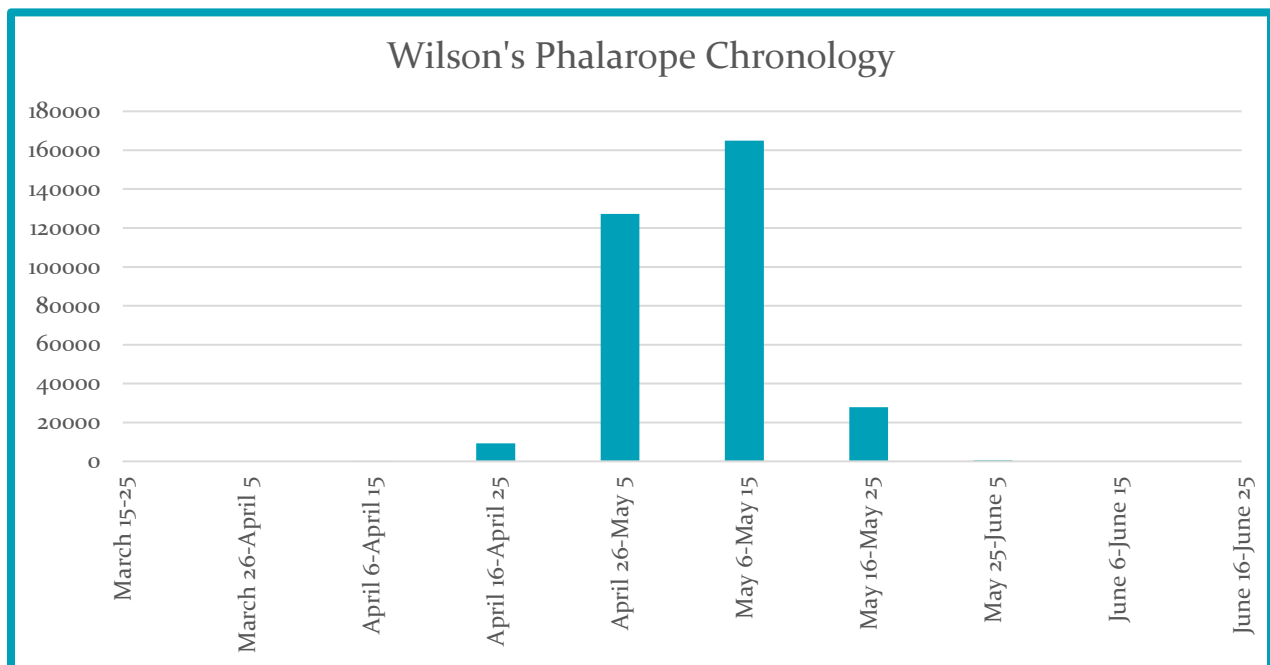
## Conservation Status:

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.

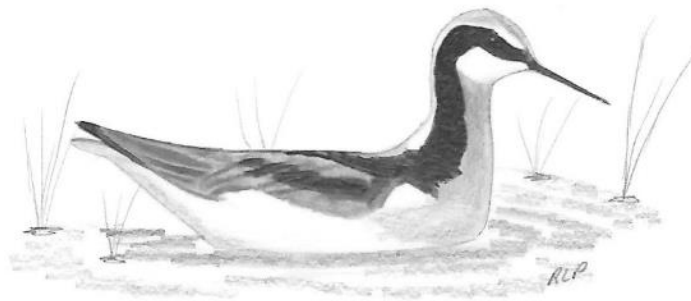


The International Shorebird Survey was not conducted in 1988, 1989, 2010, 2011, and 2012.  
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Wilson's Phalarope  
*Phalaropus tricolor*



- 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 of the years there are no birds recorded at Cheyenne Bottoms during the International Shorebird Survey; as such 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.

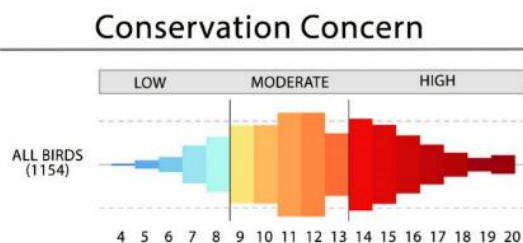
### Habitat:

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 winters off the North American coast, but most apparently are well south of Equator in winter. The few site records for this species are during the months of April, May and September. With six reported in September of 1984.

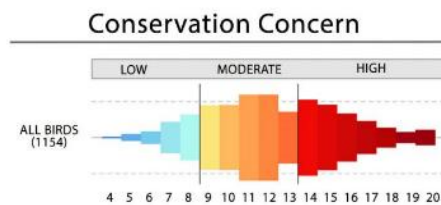
### Habitat:

All three species of phalarope's 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 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 backs of whales. On breeding grounds, they also forage while walking or wading, and flutters 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 coast in high arctic.

### Conservation Status:

The population is difficult to track, but populations are thought to have declined recently. Breeding areas in 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.



*To watch shorebirds stalk the water's edge with sedges and bulrush as their backdrop  
To see them fly against the cerulean and golden skies of a Kansas sunset  
These tend to cloak life's adversities with beauty and a sense of freedom*

