



Detroit River Hawk Watch 2008 Season Summary

Official Counter (author): Calvin Brennan

**Contact: Greg Norwood, Biological Technician
Detroit River International Wildlife Refuge
9311 Groh Road
Grosse Ile, MI 48138
Greg_Norwood@fws.gov**

Overview

The count represents the 26th year of continuous monitoring of diurnal raptors and vultures at Lake Erie Metropark and Pointe Mouillee State Game Area. This was the ninth year in which a full-time paid counter was hired. Southeastern Michigan Raptor Research disbanded and the administrative end of the watch was taken over by the Detroit River International Wildlife Refuge with funding through their non-profit affiliate, the International Wildlife Refuge Alliance. The count itself was renamed the Detroit River Hawk Watch.

A total of 402,654 birds of 18 species were recorded for the season. This is only the third time in the count's history that the 400,000 plateau has been reached. This was due to the largest Broad-winged Hawk flight since the record year in 1999. Golden Eagles showed the highest count since 2001. Many species were recorded in below average numbers, most notably Ospreys, Kestrels, Harriers, Sharp-shinned, Red-tailed and Red-shouldered Hawks. Two Black Vultures were noted, only the second and third ever on the count, and the four Short-eared Owls seen establishes a new single-season high for this species. Turkey Vultures, Bald Eagles and Swainson's Hawks were seen in typical numbers.

A total of 570 hours were logged with counts conducted on 83 of a possible 91 days from 1 September to 30 November. Eight days were washed out entirely due to inclement weather conditions. While October continued the pattern of the last few years of unseasonably warm weather, November was a bit colder than the last few years. September was about on par with recent years, although some timely frontal systems during the peak of the Broad-wing migration made for some spectacular flights.

Monthly Summaries

September

As usual, September was dominated by winds with a south component. There were just seven days of mostly north winds and four days of west winds. The timing of the fronts during the month and the associated north winds were likely critical to the large flights that occurred during the third week of the month.

The first week of September was typical of previous years. There was an early season pulse of 11 Bald Eagles and 24 juvenile Red-tails on the 6th. 12 Ospreys seen on the 8th provided the second highest flight for the species this fall, although they were below the ten-year average (Table 1).

The first strong push of birds occurred following two days of rain that washed out the count completely on the 12th and 13th. Several days of west and northerly winds and a couple of weaker frontal systems that passed through the region provided optimal conditions for hawk migration.

15 September saw the first 1,000 plus bird day of the season, dominated largely by Broad-wings and the first decent movement of Sharp-shins. This would be the precursor to a very large flight the following day with 58,448 Broad-wings recorded along with the autumn's first Swainson's Hawk and a season peak of 3 Merlins. Other than several hundred Sharp-shins, no other species flew in significant numbers on that day. A weak frontal system dominated the weather on the 17th and a relatively small number of birds made the passage highlighted by a season high of 13 Ospreys.

The morning of 18 September saw bright and clear conditions with light north winds, a classic scenario for a large Broad-wing flight. After a slow start, there was a tremendous build-up of birds by 10:00 EST. This pulse tallied almost 100,000 birds by 12:00 EST. After several hours of lighter action there was another massive push of birds in the mid-afternoon with a single hour total of over 130,000 Broad-wings with several streams of birds numbering 15,000 to 20,000. Altogether for the day, 255,641 Broad-wings were tallied, representing the second highest single-day total recorded at this hawk watch. Given the clear, almost cloudless conditions and the altitude of the birds, large number of birds were likely missed during the intervening hours in the early afternoon when lesser numbers were counted. It isn't hard to imagine that the flight in reality approached the 559,594 recorded on 17 September 1999.

Three of the five Swainson's Hawks seen this season were also recorded on the 18th, along with the second highest tally for both Cooper's Hawks and Harriers with 27 and 25 recorded, respectively. In addition, a season high of 4 Peregrines was seen on this date.

Smaller flights of Broad-wings were seen subsequent to the major movement, the largest of these on the 19th and 22nd. These two dates also correspond to the two largest Sharp-shin flights of the fall with 516 and 383 recorded, respectively. These are modest peaks for these species. Interestingly, about 52% of all Sharp-shins recorded were tallied in a ten-day period from 15 to 24 September. A season high of 13 Bald Eagles were noted on the 19th. Kestrels, another species seen in very low numbers in 2008, peaked on the 21st and the 22nd with 199 and 108, respectively. This is about 39% of all Kestrels counted in the fall. The 21st also provided the highest total of Harriers for a single day with 43 along with a season high of 33 Cooper's Hawks.

Much of the last week of the month saw modest numbers of birds, although some large Turkey Vulture numbers during the last few days of September signaled what would be the start of their dominance over the next several weeks.

A total of 327,958 birds of 13 species were recorded in September (81% of overall season total) of which 98% were Broad-winged Hawks. Of the total (321,726), 98% were recorded on the two peak days of the 16th and 18th. Virtually all of the Broad-wings recorded this fall were seen in September with just 36 recorded in October.

September totals as a percentage of season totals: Osprey (80%), Harrier (59%) Sharp-shin (65%), Cooper's (44%), Kestrel (79%), Merlin (57%), Peregrines (62%).

October

While not quite to the extreme as the fall of 2007, this October still saw above average temperatures and very few strong frontal systems. There was only one day on which there was no coverage at all. About one-half of the days had some southerly component winds with 7 days with north component winds and only 5 with west winds. This is noteworthy because west winds in the past have been dominant during October and have produced some large flights of vultures and buteos. While vulture numbers were seen at typical levels, Red-tails and Red-shoulders were seen in low numbers.

After a couple of slow days at the beginning of the month, vulture migration began in earnest on 3 October during a couple of days of north winds after the passage of a weak frontal system. The flight was spread out over much of October as is typical in the vulture migration. There were 14 days with over 1,000 birds recorded between the 3rd and the 24th. A peak appeared on the 16th and 17th with 9,560 and 10,829 counted on those days, respectively. The last Swainson's Hawk of the fall was seen in company with a vulture group during this pulse of birds on the 17th. Interestingly, the last Broad-wing of the year was seen the previous day. A surprising trio of Short-eared Owls was also seen on the 17th. These owls soared high on a thermal along with the migrating vultures.

Other large movements of vultures included 8,953 on the 4th and 7,168 on the 6th. This latter date also produced the first of two Black Vultures seen on the count this year with the other a week later on the 14th. These are only the second and third individuals of this species ever noted at this hawk watch.

Red-tailed and Red-shouldered Hawks were seen in very low numbers this year. Typically these two species are seen amidst kettles of vultures during October and the peaks are often during days of large vulture flights. While this was true in a general sense, the volume of birds was much lower than expected. Overall there was an increase in numbers during the second week of the month with the largest movement on the 22nd. A season high of 51 Red-shoulders was recorded on that day, along with the second largest total of 348 Red-tails. Golden Eagles also increased at the end of the second week and by the end of the month were ahead of schedule as compared to recent seasons. A month-high of 15 were seen on the 31st.

In addition to low buteo numbers, Sharp-shins and Cooper's Hawks were low. Cooper's typically peak in mid-October and a month-high of 19 on the 17th was about half the peak numbers seen this September. Sharp movement was similarly stunted in the latter half of the season, dropping off after the middle of the month, a time frame when there is generally a pulse of adult birds passing through the region. Goshawks and Rough-legs continued their poor showings of the last several seasons with sightings scattered widely throughout the month. The first Goshawk was noted October 1st with the first Rough-leg flying by two days later.

Altogether 72,053 birds of 18 species were tallied in October, including Black Vulture and Short-eared Owl. The 67,324 Turkey Vultures recorded represents 93% of all birds recorded for the month and 97% of the total vultures seen during the fall. The 2,280 Red-tails recorded made up 3% of all birds counted in October while the 1,558 Sharp-shins represent 2% of all birds seen in the month. In all, 42% of all Cooper's Hawks were observed in October as well as 33% of the Sharp-shin total. The Golden Eagle total of 72 was 49% of the season tally.

November

The November 2008 weather was probably fairly typical of this month in the past, but certainly colder overall and much less productive in terms of migration than the last two seasons. About a dozen days were dominated by south winds, especially in the early part of the month (excluding the first day of the month) with west winds recorded on seven days and just four with north component winds. There were five days when there was no coverage at all due to inclement weather and there were also quite a few days shortened by weather events.

There was a thirteen species day on the 1st and featured a large single-day flight of 35 Golden Eagles. Notably, there was one hour of 13 in the mid-afternoon. A season high 463 Red-tails and 8 Rough-legs were also recorded on that day, as well as the second highest total for Red-shoulders with 44 tallied. The day was also highlighted by the fourth Short-eared Owl of the fall, making a single season high for that species.

After this auspicious beginning to the month, November settled into a very predictable pattern both in terms of weather and migration. A few days of inclement weather were interspersed with a day or two of brighter skies and better movement. While Red-tails continued to dominate the remainder of the season overall, numbers were still generally low. Unlike the last two seasons when the bulk of the migration for this species happened in the final month of the count, it became clear early in November that this would not be the case this year. The total for the month (1,508) was less than the tally in October and well below the 6,700 seen a year ago during November.

The last real push of the season came in a four day period with west winds and clearer conditions between the 20th and 23rd. This movement was highlighted by the last approximately 15 Golden Eagles of the season and 20 plus Bald Eagles. Two Goshawks on the 23rd matched a single-day high for that species seen on the 6th.

A total of 2,643 birds of 14 species were seen in November. Red-tails made up 57% of all birds recorded in the month. The next most numerous raptor seen in this final frame of the season was Turkey Vulture which accounted for 25% of the flight in November. November species totals as a percentage of season totals: Golden Eagle (51%), Rough-leg (60%), Northern Goshawk (58%)

Table 1. The 10-year overview – season records in red.

	BV	TV	OS	BE	WE	NH	SS	CH	NG	RS	BW
1998	0	31,257	164	144	0	1,304	8,360	786	36	980	87,926
1999	0	28,902	80	114	0	1,159	11,571	390	32	733	612,457
2000	0	33,183	161	111	0	243	9,253	592	63	1,100	110,204
2001	0	37,184	267	176	0	1,158	19,887	897	70	1,134	82,732
2002	0	49,404	282	232	1	935	9,055	668	24	1,109	106,417
2003	1	73,886	246	199	0	1,372	12,080	882	50	874	87,359
2004	0	56,655	256	200	0	384	6,783	721	58	1,065	185,382
2005	0	104,538	241	178	0	571	8,519	854	37	956	91,089
2006	0	73,146	225	200	0	1,004	8,404	745	7	1,044	67,956
2007	0	69,703	209	254	0	929	10,745	771	6	1,045	127,167
Total	1	557,858	2,131	1,808	1	9,059	104,657	7,306	383	10,040	1,558,689

Avg.	0.1	55,786	213	181	0.1	906	10,466	731	38	1,004	155,869	
2008	2	69,676	151	195	0	292	4,728	458	12	328	321,762	
	SW	RT	RL	GE	AK	ML	PG	PR	SO	SE	UNK	Total
1998	10	8,694	40	89	1,631	119	86	0	0	1	91	141,718
1999	14	5,445	94	246	1,529	45	90	0	0	0	80	662,981
2000	12	8,210	78	251	1,086	57	41	0	1	2	44	164,692
2001	6	10,638	70	174	1,860	75	94	0	1	1	54	156,478
2002	4	8,074	68	110	3,248	77	67	0	0	1	0	179,776
2003	14	12,161	100	124	2,380	83	87	0	0	2	12	191,912
2004	2	8,689	125	108	1,008	54	36	0	0	1	0	261,527
2005	10	7,711	67	90	1,745	74	51	1	0	0	0	216,732
2006	9	6,530	29	125	1,861	45	47	0	0	1	0	161,378
2007	3	9,676	29	124	1,391	47	73	0	0	0	0	222,172
Total	84	85,828	700	1,441	17,739	676	672	1	2	9	281	2,359,366
Avg.	8	8,583	70	144	1,774	68	67	0.1	0.2	0.9	28	235,937
2008	5	4,003	30	148	795	28	37	0	0	4	0	402,654

Species Accounts

Black Vulture *Coragyps atratus*

Two Black Vultures were recorded this fall at the watch; 06 and 14 October. The only other record for the count was a bird seen 02 October 2003. Interestingly, an independent observer saw another probable individual this fall on 16 October.

Turkey Vulture *Cathartes aura*

Turkey Vultures were recorded in almost identical numbers as a year ago with 69,676 tallied. This is approximately 20% above the 10-year average for the species. Peak numbers were recorded on 16 and 17 October with 9,560 and 10,829 counted on those dates, respectively. While most birds were tallied in October, vultures were seen migrating throughout virtually the entire census period with the first noted 1 September and the last recorded 26 November.

Osprey *Pandion haliaetus*

Ospreys continued their downward trend of the last few seasons. The 151 recorded is 29% below the 10-year average and the lowest total since 1999 when just 80 were seen. Peak flights were noted 17 September with 13 and 12 on 8 September. The bulk of the flight came through in September with the last two seen on 30 October.

Bald Eagle *Haliaeetus leucocephalus*

While Bald Eagle numbers were down from the record 254 a year ago, the 195 seen this season is on par with recent years and about 8% above the 10-year average for the species. Peak days were 13 on 19 September and 11 on 6 September. September boasted the most numbers overall, but migration was spread throughout the season as this species has one of the most attenuated flights of any raptor. I suspect that there is movement through December, especially of adults as we don't tend to see a lot of migrants of this age class at this hawkwatch.

Northern Harrier *Circus cyaneus*

Harriers are one of those species that appear to be on a four-year down cycle at this hawkwatch, so it wasn't unexpected that numbers were low this fall. But what was surprising was to the degree that the flight was down with the 292 tallied. This is the lowest total since 243 recorded in 2000 and 68% below the 10-year average. I believe breeding success has the largest influence on these numbers, perhaps an over-simplification but a reasonable assumption. If we compare this fall to 2006, one of the better recent seasons, 505 were recorded in September of that year, a time-frame when almost all individuals are juveniles. In contrast, 173 were seen in September this fall. The largest single-day count was 43 on 21 September. Harriers have an extended migration window, this year they were recorded from 02 September through 28 November with the largest numbers seen in September.

Sharp-shinned Hawk *Accipiter striatus*

Sharp-shins were another species that had well below average results this season. We have to go all the way back to 1992 to find a lower total for the species. The 4,728 tallied is approximately 55% below the 10-year average. Breeding success probably had a lot to do with lower numbers of this species. September numbers were low *and* we did not see the peak of adult activity during the middle and latter portions of October, so the result was a two-pronged effect. The peak date was 19 September with 516. September saw the largest proportion of the migration, but migrants were seen 1 September through 27 November.

Cooper's Hawk *Accipiter cooperii*

Cooper's Hawks were seen in the lowest numbers since 1999. The 458 counted is 37% below the 10-year average for the species. Peak flights were 33 on 21 September and 27 on 18 September with the overall numbers split fairly evenly between September and October. Typically there is a sharper peak during October. This could reflect a continued increase in the abundance of local breeders. Cooper's Hawks were seen throughout the survey period with migrants noted 1 September through 27 November.

Northern Goshawk *Accipiter gentilis*

Goshawks continue to be seen in low numbers, although this year's total just about matched the combined totals of the last two seasons. The count of twelve birds is 68% below the 10-year average. Five birds were seen in October, with the first on the 1 October and the others scattered throughout the month. Seven were tallied during November, including two on the 6th as well as two on the 23rd. These latter sightings were the last of the season and were the only adults encountered.

Red-shouldered Hawk *Buteo lineatus*

The 328 Red-shoulders seen in 2008 is the lowest total since 1994 and 67% below the 10-year average for the species. It has been fairly well documented that the Eastern population of this species has been declining. Juvenile numbers at this site have been proportionately low for quite a few seasons, even though overall numbers have been stable. With so many species seen in lower numbers this fall, the Red-shoulder total may be a reflection of that overall trend for the season. It is also possible that after so many years of poor breeding, the population trend for the species is finally being borne out in the number of individuals being detected overall. The peak flight was 51 on 22 October with the first individual recorded 18 September and the last 27 November. Of all individuals aged, 85% were adult and just 9% were aged as juvenile.

Broad-winged Hawk *Buteo platypterus*

The Broad-wing flight provided one of the brightest highlights of the season. The 321,762 recorded is the third highest total ever on the count and the peak count of 255,641 on 18

September is second only to the over half-million flight on 17 September 1999. Optimal conditions at the right time made for this spectacular show this year. All but 36 Broad-wings were seen in September and were recorded 1 September to 16 October.

Swainson's Hawk *Buteo swainsoni*

The count of 5 Swainson's Hawks this year is a bit below the average of 8. Sightings were a dark-morph bird of unknown age September 16th, two dark-morphs of unknown age and another of unknown age and morph all on September 18th, Finally, a dark-morph juvenile was seen on October 17th.

Red-tailed Hawk *Buteo jamaicensis*

Red-tails were another species with low numbers this fall. 1997 was the last year that the species was recorded in similarly low numbers. The 4,003 recorded is 53% below the 10-year average. It is hard to speculate on any solid reasons as to the lower numbers. There seemed to be a typical movement of juvenile birds during the early part of the season, but there was not the usual heavy push of adult birds seen in the latter portions of October and into November as seen in the last couple of seasons. Most were seen in October, although 1 November provided the peak flight of the fall with 463 seen that day. Red-tails were counted throughout the entire census period from Day-1 to Day-91. Amazingly, only a single dark individual was noted; an adult rufous-morph on October 14th.

Rough-legged Hawk *Buteo lagopus*

The 30 Rough-legs recorded this fall is on par with the last two seasons, but still 57% below the 10-year average for the species. Many birds likely move late in the fall as wintering numbers in the region seem to have been at typical levels the last few years. Twelve Rough-legs were seen in October with the first individual noted on the 3rd. There were 18 were tallied in November, including the peak of 8 birds on the 1st. The last was seen November 22nd. There were 21 light-morphs (70%) and 9 dark-morphs.

Golden Eagle *Aquila chrysaetos*

The 148 Golden Eagles was the largest total since the 2001 season. Part of this increase may have been due to successful breeding as the percentage of juvenile birds was higher than average, but other recent seasons with similar juvenile numbers have not had higher than average overall numbers. The peak flight was an impressive 35 counted 1 November, one of the largest single-day passages at this hawkwatch. The first Golden was noted October 11th and the last two were counted November 28th, with the migration split relatively evenly between October and November. The breakdown in terms of age classes this fall was 80 juveniles (54%), 31 sub-adults (21%), 13 adults (9%) and 24 of unknown age (16%).

American Kestrel *Falco sparverius*

Kestrels were expected to be recorded in lower numbers this season as they seem to be on the same 4-year down cycle as Harriers. Similarly, it was not anticipated that numbers were as low as recorded. 1996 is the last year Kestrels were recorded in comparably low numbers. The total of 795 this fall is 55% below the 10-year average. Most were tallied in September with 199 detected 21 September. Kestrels were noted 1 September through 23 November.

Merlin *Falco columbarius*

Merlins were counted in their lowest numbers since 1997. The 28 recorded this year is 59% below the 10-year average for the species. With a species that varies in numbers so much year to year, it is difficult to speculate on any one reason, other than to say that it is in keeping with the general trend seen this fall. Sixteen were noted in September, including a season high of 3 on the

16th. Eight were seen in October with four migrating through in the final month. The first was recorded September 2nd and the last November 10th.

Peregrine Falcon *Falco peregrinus*

Peregrines are another species that varies widely in abundance from year to year. The 37 tallied in 2008 is about half of last year's total and 45% below the 10-year average of 67. Twenty-three Peregrines were seen in September, peaking at 4 birds on the 18th. They were recorded from 4 September through 14 November.

Short-eared Owl *Asio flammeus*

Not quite an annually recorded species, Short-eared Owls were detected in a record number this fall. Three of the four were seen on 17 October with the final bird noted 1 November.

Non-raptor Highlights

The fall of 2008 was quite ordinary in terms of non-raptor highlights with most of the common migrants noted in average numbers and at average dates. The exception was probably waterfowl numbers, which seem to move through the region later with each passing year.

Tundra Swans were first noted during the third week of October with numbers building up at Pointe Mouillee in early November with many hundreds staging there, along with hundreds of migrants seen on 1 November. Two Snow Geese were noted, both white morphs. A loner was seen 28 October and one was flying with a group of migrant Tundra Swans on 1 November. Two Long-tailed Ducks were noted on 19 November.

Black-crowned Night-herons seem to follow a predictable pattern here with the local birds disappearing by early October, but migrants seen arriving in the area in the last week or ten days of November. This late November movement also corresponds with the peak movement of migrant Great Blue Herons, typically when the last of the Great Egrets leave. Eleven Black-crowns were noted 28 November. An American Bittern was seen at Pointe Mouillee on 4 October.

Never a numerous migrant through the area in fall, Common Loons were noted as early as 26 September with other sightings scattered widely throughout the fall.

Sandhill Cranes were observed in very good numbers again this year with the first group noted on 29 October and recorded as late as 22 November, totaling just over 100 birds. The largest group was about 55 birds. A partially albino American Coot was seen 25 November.

Shorebirds were seen in fairly average numbers this fall. Highlights included a single Red Knot flying with a group of yellowlegs on 8 September and 10 American Golden-plovers on 27 September. Over 100 Dunlin were still at Pointe Mouillee in early November.

Bonaparte's Gulls were seen as early as 27 September, but the bulk of the migration was during November. Great Black-backed Gulls were first noted 27 October and peaked with 4 birds on 19 November. An adult Lesser Black-backed Gull was noteworthy on 12 October.

Lingering passerines included 3 Tree Swallows on 13 November and a Blue-gray Gnatcatcher on 16 November. A Blackpoll Warbler was seen on 23 October. Amazingly, only one Orange-crowned was noted this fall on 2 October. A Dickcissel was heard at Pointe Mouillee on 4

October. Rusty Blackbirds were quite numerous in late October and early November with an estimated 1,500 staging at Pointe Mouillee on 1 November.

Northern finches were not as abundant as in 2007. Only Pine Siskins were in any significant quantities. A few Purple Finches were noted throughout the fall, including the very early date of 3 September. Lapland Longspurs and Snow Buntings were noted in fair numbers during the fall. Longspurs were seen as early as 4 October with a group of 15 on 16 November a good sighting, although a fair number were mixed in with large Horned Lark flocks in the same time frame. Snow Buntings were first seen 30 October and groups of 50 or more birds were seen throughout November.

Word of Thanks

As always, a successful season is the cumulative effort of many dedicated individuals. My deepest gratitude goes out to my regular volunteers: Terry Angevine, Lathe Claflin, John Elliott, Ron Harkness, Raburn Howland, Fred Kirn, Rodney Laura and Jim Maki. A very special word of appreciation goes to Josh Haas for his friendship and his time covering for me on Sundays again this season. As always, a big thank-you goes to Jeff Schultz for his eyes and expertise during this year's massive Broad-wing flight.

Thank you to our usual group of enthusiastic and die-hard hawk watchers whose friendship during my falls here make it easy to come back year after year: Bob Ake, Joy Barron, Allen Chartier, Paul Cypher, Robert Epstein, Darlene Friedman, Saul Hanft, Gloria Harkness, Kara Haas, Bob Jacobs, Scott Jennex, Frank Kitakis, Stan Kowalski, Jeff Loughman, Pat Mulawa, Richard Naber, Rick Nirschl, Chuck Owens, Bob Pettit, Larry Schneider, Mike Sefton, Don Sherwood, Jerry Stanley, Pete Przybylski, Tex Wells and Skip Zabel.

Thanks go to the Detroit River International Wildlife Refuge and the International Wildlife Refuge Alliance for their support throughout the season. I want to thank especially Lisa Appel, Dick Micka and Greg Norwood for making the process as smooth as possible in this transition year.

As always, to my wife Charlene, thank you for your help and support at the watch and for enduring the time spent apart.

Addendum

Below is a list of all bird species seen from or near the hawk watch during the fall 2008.

Snow Goose
Canada Goose
Mute Swan
Tundra Swan
Wood Duck
Gadwall
American Wigeon
American Black Duck
Mallard
Blue-winged Teal
Northern Shoveler
Northern Pintail
American Green-winged Teal

Canvasback
Redhead
Greater Scaup
Lesser Scaup
Long-tailed Duck
Bufflehead
Common Goldeneye
Hooded Merganser
Red-breasted Merganser
Common Merganser
Ruddy Duck
Common Loon
Pied-billed Grebe
Double-crested Cormorant
American Bittern
Great Blue Heron
Great Egret
Green Heron
Black-crowned Night Heron
Black Vulture
Turkey Vulture
Osprey
Bald Eagle
Northern Harrier
Sharp-shinned Hawk
Cooper's Hawk
Northern Goshawk
Broad-winged Hawk
Red-shouldered Hawk
Swainson's Hawk
Red-tailed Hawk
Rough-legged Hawk
Golden Eagle
American Kestrel
Merlin
Peregrine Falcon
Sora
American Coot
Sandhill Crane
Killdeer
American Golden-plover
Black-bellied Plover
Greater Yellowlegs
Lesser Yellowlegs
Solitary Sandpiper
Spotted Sandpiper
Ruddy Turnstone
Red Knot
Least Sandpiper
Pectoral Sandpiper
Sanderling

Dunlin
American Woodcock
Wilson's Snipe
Bonaparte's Gull
Ring-billed Gull
Herring Gull
Lesser Black-backed Gull
Great Black-backed Gull
Forster's Tern
Caspian Tern
Rock Pigeon
Mourning Dove
Short-eared Owl
Common Nighthawk
Chimney Swift
Ruby-throated Hummingbird
Belted Kingfisher
Red-bellied Woodpecker
Red-headed Woodpecker
Yellow-bellied Sapsucker
Hairy Woodpecker
Downy Woodpecker
Northern Flicker
Olive-sided Flycatcher
Eastern Phoebe
Eastern Kingbird
Warbling Vireo
Blue-headed Vireo
Red-eyed Vireo
Blue Jay
American Crow
Horned Lark
Purple Martin
Tree Swallow
Northern Rough-winged Swallow
Bank Swallow
Cliff Swallow
Barn Swallow
Black-capped Chickadee
Tufted Titmouse
White-breasted Nuthatch
Red-breasted Nuthatch
Brown Creeper
House Wren
Winter Wren
Carolina Wren
Marsh Wren
Golden-crowned Kinglet
Ruby-crowned Kinglet
Blue-gray Gnatcatcher

Gray Catbird
Brown Thrasher
Eastern Bluebird
Hermit Thrush
Swainson's Thrush
Gray-cheeked Thrush
American Robin
Starling
American Pipit
Cedar Waxwing
Tennessee Warbler
Orange-crowned Warbler
Nashville Warbler
Northern Parula
Yellow Warbler
Chestnut-sided Warbler
Magnolia Warbler
Cape May Warbler
Black-throated Blue Warbler
Yellow-rumped Warbler
Black-throated Green Warbler
Blackburnian Warbler
Palm Warbler
Blackpoll Warbler
Bay-breasted Warbler
Black and white Warbler
American Redstart
Northern Waterthrush
Common Yellowthroat
Wilson's Warbler
Canada Warbler
Scarlet Tanager
American Tree Sparrow
Field Sparrow
Chipping Sparrow
Savannah Sparrow
Fox Sparrow
Song Sparrow
Lincoln's Sparrow
Swamp Sparrow
White-crowned Sparrow
White-throated Sparrow
Dark-eyed Junco
Lapland Longspur
Snow Bunting
Northern Cardinal
Rose-breasted Grosbeak
Indigo Bunting
Dickcissel
Bobolink
Red-winged Blackbird

Rusty Blackbird
Common Grackle
Brown-headed Cowbird
Baltimore Oriole
Purple Finch
House Finch
Pine Siskin
American Goldfinch
House Sparrow
174 species