

Chase Woods Nature Reserve

Avian Survey Report



Hooded Mergansers – Chase Woods Wetland

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December 31, 2020

For the Nature Conservancy of Canada, BC Region

Acknowledgments

I would like to acknowledge the assistance and contributions of Robin Annschild, Wetland Restoration Consulting, for the map and aerial photo in this report and for our collaboration on all things wetland related.

Thanks to the Nature Conservancy of Canada for undertaking this restoration project and for funding the surveys and reports.

I would like to thank my partner Rowan Percy for her editorial assistance.

All photographs by Ren Ferguson, unless otherwise indicated.

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CHASE WOODS AVIAN SURVEY REPORT

Executive Summary

- In the second (2020) year of avian monitoring in the Chase Woods wetland, a total of 33 species were observed, 10 of which were new to the wetland. The wetland attracted five new waterfowl species: American Wigeon, Green-winged Teal, Ring-necked Duck, Bufflehead and Hooded Merganser. Wood Duck and Mallard raised young. Virginia Rails were heard for the first time. The number of Common Yellowthroat and Marsh Wren increased and both species nested. Red-winged Blackbird nested for the first time. Species at Risk observed were Great Blue Heron and Barn Swallow.
- Twenty-six species were observed prior to the wetland construction, including five that were wetland-dependent. Forty-two species were enumerated over the two years following, ten of which were wetland-dependent (see, Definitions p. 8). There were no waterfowl that overwintered in the first year, 2018. By 2020, seven species of overwintering waterfowl were consistently present.
- The total number of birds confirmed as nesting in 2018 was six and by 2020 the total had increased to eight.
- No waterfowl nested in 2018, two species nested in 2019 but the young were only seen for a few days whereas in 2020, two waterfowl species raised young successfully to fully feathered juvenile stage.
- Six passerine species were confirmed nesting in 2018, but only two were wetland-dependent. By 2020 the number of nesting passerines remained at six but the composition changed increasing the wetland-dependent passerines to three.
- Recommendations include Reed Canary Grass control, planting native vegetation, setting fish traps to determine species, installing swallow nest boxes, bat boxes and the deployment of bat recorders.
- Further inter-professional consultation is recommended to plan and plant vegetation that will enhance the possibilities of avian breeding success and increase the overall biodiversity of the site.
- The wetland and estuary are subject to climate change, large-scale weather events, sea level rise and other human-caused changes. Future management and plans for this reserve ought to consider these impacts.

Introduction

The objective of these multi-year surveys was to monitor and record changes in avian use from pre-restoration in 2018 through the following two years, as the Chase Woods wetland matured. The data, observations and recommendations in this report will assist with the future management of the wetland and in guiding future projects of this kind.

This report covers the second year of post-restoration avian monitoring at the Chase Woods wetland, as well as providing a comparison of results over the three years of pre- and post-wetland construction surveys. The 2020 monthly and bi-monthly surveys took place from February through August. For the pre-restoration baseline data gathered in 2017-2018, see, *Chase Woods Reserve Avian Survey Report, July 2018*, Ren Ferguson. For the first year of post-restoration monitoring, 2018-2019, see *Chase Woods Reserve Avian Survey Report, October 2019*, Ren Ferguson. For ease of comprehension, some sections of this report repeat necessary information already provided in the two previous reports.

In order to provide a broader context to the specific focus of the wetland surveys, this report includes documentation of the birds observed in the upland forest and in the flooded fields of the neighbouring property.

Species lists of birds, vertebrates and invertebrates, including at-risk taxa observed both within the wetland and the upland forest habitat, are also included.

Site Description and Survey Area

Prior to the advent of settlers, the lowlands in the Chase Woods property and the surrounding area were part of the biologically rich Cowichan/Koksilah estuary and continue to be part of the traditional territory of the Cowichan Tribes. Settlers drained and converted much of the estuary to farmland. Prior to the wetland construction, the habitat was an old hayfield dominated by reed-canary grass with scattered patches of willow, bordered on the eastern edges with thickets of Himalayan Blackberry and scattered shrubs.

The restored area covers 2.6 hectares and consists of a sinuous stream path and 11 wetland pools of varying depths. The wetland survey area includes a buffer of 10 feet from the high water level. See, aerial photo and map, below, for overview. To the northeast, the wetland is bordered by mixed forest. On the northeast edge, at the end of an access road, there is a workshop beside the wetland and inflow stream. To the west, Cowichan Tribes land borders the wetland. The vegetation consists largely of Reed Canary Grass and willow and a deep drainage ditch runs along this border. The land along the southern edge is also dominated by Reed Canary Grass and willow.

Aerial Photo of Site



Photo by Robin Annschild

Restoration Map

Chase Woods 2018 Restoration Detail



Map by Robin Annschild

Water Levels

Water levels and the hydroperiod play a significant role in any wetland, where birds and other wildlife shift with changes in water levels. Fall and winter rains and high tides maintain the high water levels in the wetland for the winter months.

The wetland was at its highest water levels in February and March 2020. By April, the water began to recede and continued to do so through to late August. The inflow streambed behind the workshop has a significant woody debris layer, which restricts the flow of water. For water levels and vegetation cover in the wetland from February to July, 2020, see, photographic records.

Wetland Vegetation

During the construction of the wetland in the fall of 2018, the Reed Canary Grass, including the top layer of soil, was removed. However, in the two years since there has been significant regrowth of this invasive plant throughout the wetland and on adjacent slopes. This species is notoriously tenacious and extremely difficult to eradicate. The willow that was left or replanted is still healthy.

Native wetland plants such as rushes, sedges, cattail, Water-starwort, *Callitriche* species, Water Plantain, *Alisma* species, have begun to colonize but have been suppressed by the aggressive regrowth of the Reed Canary Grass. In 2019, the most interesting plant arrival was the Vancouver Island Beggarticks, *Bidens amplissima*, (SARA Schedule 1, Special Concern), which was found growing near the berm with the hydro pole. In August 2020, a beggarticks species was spreading, its flowers visible throughout the wetland. However, confirmation as to whether this was the common species or the *Bidens amplissima* was not possible as the plants were not accessible.

Methods

In order to obtain data on avian use of the wetland, survey timing was of necessity responsive to the seasons and weather conditions. Surveys were conducted at varying times of the day, beginning most often at sunrise when birds are most active. The dates of the 2020 surveys were: February 9, 27, March 17, April 2, May 9, 28, June 14, July 8, 26, and August 26.

Surveys of the wetland area, including the 10-foot buffer, were done from various vantage points, most often from the top of the slope where much of the wetland could be viewed. Binoculars, spotting scope and a camera were utilized for locating and documenting birds and other taxa. The Reed Canary Grass growth made it impossible to see parts of the wetland, so observations were hampered as the season progressed.



Wetland, July 8, 2020, showing density of Reed Canary Grass

Definitions

Many avian species require water-based habitats such as wetlands, lakes, or flooded fields. These birds include waterfowl, rails, herons and some songbirds, such as Red-winged Blackbird. Many other species also utilize this rich habitat for food and water but are not strictly dependent on it for their life cycle. For the purposes of this report, I have used the term "wetland-dependent" to indicate those species that either specifically require or show a strong preference for water-based habitats for aspects of their life cycle e.g. overwintering, breeding and foraging.

Results

See, Table 1 for a year-by-year comparison of bird species seen in the wetland. See, Table 2, for a complete list of all avian species observed in the wetland in 2019 and 2020.

2020 Wetland Avian Survey Results

The most exciting change in the second year, 2020, of monitoring since the wetland was constructed was a substantial increase in wetland-dependent birds; see highlighted species, Table 1. The adage "build it and they will come" is certainly true for the Chase Woods wetland.

A total of 33 species were observed utilizing the wetland in 2020, 10 of which were new.

Five waterfowl species were new to the wetland this year: American Wigeon, Green-winged Teal, Ring-necked Duck, Bufflehead, and Hooded Merganser. Wigeon and teal are dabbling ducks and the others are diving ducks. This was the first year with diving duck species, which indicates that as the wetland matures, there has been an increase in animal prey species. Mallard and Wood Duck both nested successfully this year.



Green-winged Teal, Ring-necked Duck and Mallard

Virginia Rails were heard for the first time with three calling in May and one heard in July. In past years, call-playback was employed for rails with no response. This year they were heard spontaneously calling from the wetland.

Breeding songbirds, Marsh Wren, Common Yellowthroat and Red-winged Blackbird, all increased in number and also nested in the restored wetland for the first time. Both Marsh Wren and Common Yellowthroat will utilize the Reed Canary Grass stems, in place, as a supporting structure and also collect the grass for material to construct their nests. Red-winged Blackbirds use the grass as material for construction and in the Chase Woods wetland it was most likely that willow was the substrate.

The two avian Species at Risk remained the same: Great Blue Heron (SARA Schedule 1, Special Concern) and Barn Swallow (SARA Schedule 1, Threatened). Herons were seen resting and hunting. Two pairs of Barn Swallows nested in the workshop this year and both fledged young successfully.



Great Blue Heron

Both Tree and Violet-green Swallows used the Purple Martin nest boxes to raise young this year. Purple Martin have not taken to the nest boxes yet and were not seen in the area this year. All of the other swallow species intensively foraged for insects over the wetland.

Other species that were new to the wetland this year included Cooper's Hawk, Northern Flicker, Swainson's Thrush and Lincoln's Sparrow.

Table 1: Wetland Avian Species, 2018-2020

Blue Highlights indicate Wetland-dependent Species (see, Definitions, p.8)
 Numerals indicate maximum number of individuals observed at any one time.
 N indicates confirmed nesting for the corresponding year.

Common Name	2018 Pre-restoration	2019	2020
Canada Goose	2	15 N	10
Wood Duck		4 N	9 N
American Wigeon			4
Mallard	7	82	45 N
Green-winged Teal			8
Ring-necked Duck			34
Bufflehead			6
Hooded Merganser			3
Anna's Hummingbird	1	1	
Rufous Hummingbird	2	2	3
Virginia Rail			3
Great Blue Heron		1	1
Osprey (flyover)		1	1
Great Horned Owl (flyover)		1	
Cooper's Hawk			1
Belted Kingfisher		1	1
Red-breasted Sapsucker	2	2	2
Downy Woodpecker		2	
Northern Flicker			1
Purple Martin (flyover)		2	
Tree Swallow	14 N	6 N	4 N
Violet-green Swallow	2 N	8 N	10 N
Barn Swallow	6 N	40 N	12 N
Chestnut-backed Chickadee	8	5	2
Pacific Wren	2		
Marsh Wren	6 N	1	7 N
Bewick's Wren	1		
Golden-crowned Kinglet	3		
Swainson's Thrush			1
American Robin	2	11	3
Cedar Waxwing	4	2	
Purple Finch	1	1	2
American Goldfinch		4	7
Spotted Towhee	2	1	1

Chipping Sparrow		1	
Fox Sparrow	1		
Song Sparrow	4 N	3	6
Lincoln's Sparrow			1
White-crowned Sparrow	1		
Golden-crowned Sparrow	2		
Dark-eyed Junco	3	4	1
Red-winged Blackbird		9	12 N
Brown-headed Cowbird	2	1	2
Orange-crowned Warbler	3	2	2
Common Yellowthroat	6 N	1	12 N
Yellow Warbler	2	2	3
Wilson's Warbler		1	
Black-headed Grosbeak		1	

Discussion and Comparison of Data, 2018-2020

Table 1 shows the changes in species composition, numbers and confirmed nesting over the three years of monitoring.

Avian use changed significantly between the baseline surveys done in 2018 and the two years following construction, 2019 and 2020. There were 26 avian species recorded in 2018, with only five wetland-dependent species – two waterfowl and three songbird species. The total number of species observed in 2019 and 2020 was 42, which included 10 wetland-dependent species. (It should be noted that the total number of species as a measure is slightly misleading as the species composition shifted each year with some species no longer being seen and other new species moving in.)

The numbers that are most significant are those of the wetland-dependent species, which increased from five to 15, 10 of which were new since the wetland was created. The 10 wetland-dependent species were Great Blue Heron, Belted Kingfisher, Red-winged Blackbird, Virginia Rail and six waterfowl species, Wood Duck, American Wigeon, Green-winged Teal, Ring-necked Duck, Bufflehead, and Hooded Merganser. By 2020, seven of the eight waterfowl species overwintered at Chase Woods and Wood Ducks joined Mallards and Canada Geese during the breeding season. Waterfowl were observed foraging extensively, with breaks to loaf on the logs and raised ground throughout the wetland. It was good to see the Wood Duck and Mallard ducklings weaving their way through the vegetation, eating continually along the way. Great Blue Heron and Belted Kingfisher also hunted in the wetland. When the area was a hayfield no waterfowl overwintered and geese and mallard were only seen three times when there was a small flooded area.

Another positive change was the increase in breeding species with the new wetland. Six species were confirmed nesting prior to the wetland being built. This dropped to five in the first year after construction, due to the loss of vegetative cover with the removal of

the Reed Canary and some of the willow and blackberry within the 10-foot buffer. By the second year of the wetland's maturation process, some native plants had begun to colonize and the Reed Canary Grass had re-established vigorously. In 2020, a total of eight species were confirmed as breeding in the wetland. Five were wetland-dependent species, Wood Duck, Mallard, Marsh Wren, Common Yellowthroat and Red-winged Blackbird. The three other species were Barn Swallow (included because they aerial foraged primarily over the wetland even though they nested in the workshop) and Tree and Violet-green Swallows who nested in the Purple Martin boxes.

Many other species (Table 1) utilized the new wetland habitat for foraging and to access water for bathing and drinking.

Summary of Results

The changes in species composition and the increase in number of avian species, particularly that of the wetland-dependent species, cannot be separated from the overall increase in biodiversity that the wetland restoration brought. Despite the lack of a comparative study of vertebrates, invertebrates and plants over the three years of this project, it appears that during the 2019-2020 period the wetland saw an increase in these taxa, which in turn supported the increase of bird species. See, Table 3 and Table 4 for a list of vertebrates and invertebrates observed over the two years since the wetland construction.

Upland Forest Species

The upland forest habitat bordering the wetland has different avian species associated with it and some of these species utilized both habitats. Accordingly, I kept records of forest species and have included them in this report, as this information provides NCC with a broader understanding of the avifauna in the reserve. See, Table 5, for a list of avian species observed in the forest habitat over the three years of monitoring.

On an upland forest survey on May 28, when I walked higher into the reserve, I observed an Olive-sided Flycatcher (SARA-listed, Special Concern) singing. It is likely that the same male that I heard singing on territory in May, June and July was part of a nesting pair, although the nesting was not confirmed; (this species was confirmed nesting in 2019). Band-tailed Pigeons (SARA-listed, Special Concern) were heard singing from a higher elevation in the upland forest, which would offer good breeding habitat for this species. Two Red-breasted Sapsucker nests were found this year.

Other taxa of note in the upland forest were five Ozette Coralroot, a provincially Blue-listed plant species.



Ozette Coralroot

Incidental Observations, Neighbouring Fields

The cut hay fields on the neighbouring property flood every winter and attract a variety of waterfowl, including Mallard, Ring-necked Duck, Common Merganser, American Wigeon and Bufflehead. The overall numbers of waterfowl appear to have decreased since the wetland at Chase Woods was added. A Willow Flycatcher was singing on territory for the breeding season in the neighbouring property just outside the boundary of the Chase Woods Nature Reserve.

Recommendations

- Climate change, sea level changes, extreme weather events and human-caused changes in the Cowichan/Koksilah estuary will have impacts on the wetland. These impacts should be taken into consideration in future planning for the wetland.

- Consultations between professionals and stakeholders are recommended, for review of this project's objectives in relation to further phases of restoration in the surrounding area.
- Continue avian surveys to monitor changes in birdlife as the wetland matures.
- Plant a variety of native vegetation to discourage invasive species and to provide cover, food and nesting habitat for birds and other wildlife. Plant types that provide food and will benefit the overwintering and breeding birds include: cattail, rushes, sedges, bur-reed, willow and cottonwood.
- Since finding Vancouver Island Beggarticks, *Bidens amplissima*, in the wetland, I recommend follow-up by a botanist, with an inventory and monitoring of this Species at Risk.
- Install nest boxes for Violet-green and Tree Swallows along the edges of the wetland.
- Employ a fish fry trap to determine fish species in wetland (pers. comm. T. Kulchyski, Cowichan Tribes fish biologist.)
- Survey for bats and deploy a bat-recording unit to determine the species foraging over the wetland.
- Install bat boxes on the property.
- Consider Western Screech-Owl surveys for the upland forest (SARA Schedule 1, Threatened).

Conclusion

Where there once was a hayfield of low biodiversity, dense with Reed Canary Grass, now there is an ephemeral wetland with a winding stream and pools with varying hydroperiods. Since the construction of the wetland, there has been an overall increase in biodiversity including birds, plants, amphibians, fish, insects and mammals.

The objectives of the Chase Woods wetland project, including the improvement of the habitat for Species at Risk, overwintering and breeding waterfowl and wetland-dependent birds have been successful, to date.

The wetland is just over two years old and native plant species have been inhibited from colonizing, due to the amount of regrowth of Reed Canary Grass. As the wetland matures and, providing more native plants become established, naturally or through planting, the wetland will be able to support an even greater diversity of birds and other wildlife. However, this optimistic view is constrained by the regrowth of Reed Canary Grass. An additional concern is that silting may in-fill the deeper pools, which could provide further opportunity for the Reed Canary to expand. It is essential for waterfowl and other water-dependent birds to continue to have access to open water.



Male Common Yellowthroat

TABLES 2 to 5

Table 2: Chase Woods Wetland Avian Species List for 2019 and 2020

Common Name	Scientific Name	Federal Status (COSEWIC)	Provincial Status
Canada Goose**	<i>Branta canadensis</i>		
Wood Duck**	<i>Aix sponsa</i>		
American Wigeon	<i>Mareca americana</i>		
Mallard**	<i>Anas platyrhynchos</i>		
Green-winged Teal*	<i>Anas crecca</i>		
Ring-necked Duck	<i>Aythya collaris</i>		
Bufflehead	<i>Bucephala albeola</i>		
Hooded Merganser*	<i>Lophodytes cucullatus</i>		
Anna's Hummingbird*	<i>Calypte anna</i>		
Rufous Hummingbird*	<i>Selasphorus rufus</i>		
Virginia Rail*	<i>Rallus limicola</i>		
Great Blue Heron	<i>Ardea herodias fannini</i>	Special Concern (1-SC SARA)	Blue-list (S2S3B, S4N)
Osprey (flyover)	<i>Pandion haliaetus</i>		
Cooper's Hawk	<i>Accipiter cooperii</i>		
Great Horned Owl (flyover)	<i>Bubo virginianus</i>		
Belted Kingfisher	<i>Megaceryle alcyon</i>		
Red-breasted Sapsucker	<i>Sphyrapicus ruber</i>		
Downy Woodpecker	<i>Dyobates pubescens</i>		
Northern Flicker	<i>Colaptes auratus</i>		
Tree Swallow**	<i>Tachycineta bicolor</i>		
Violet-green Swallow**	<i>Tachycineta thalassina</i>		
Barn Swallow**	<i>Hirundo rustica</i>	Threatened (1-T SARA)	Blue-list (S3S4B)
Chestnut-backed Chickadee	<i>Poecile rufescens</i>		
Marsh Wren**	<i>Cistothorus palustris</i>		
Swainson's Thrush	<i>Catharus ustulatus</i>		
American Robin*	<i>Turdus migratorius</i>		
Cedar Waxwing*	<i>Bombycilla cedrorum</i>		
Purple Finch	<i>Haemorhous purpureus</i>		
American Goldfinch	<i>Spinus tristis</i>		
Spotted Towhee*	<i>Pipilo maculatus</i>		
Chipping Sparrow	<i>Spizella passerina</i>		

Song Sparrow**	<i>Melospiza melodia</i>		
Golden-crowned Sparrow	<i>Zonotrichia aticapilla</i>		
Lincoln's Sparrow	<i>Melospiza lincolnii</i>		
Dark-eyed Junco*	<i>Junco hyemalis</i>		
Red-winged Blackbird**	<i>Agelaius phoeniceus</i>		
Brown-headed Cowbird*	<i>Molothrus ater</i>		
Orange-crowned Warbler*	<i>Oreothlypis celata</i>		
Common Yellowthroat**	<i>Geothlypis trichas</i>		
Yellow Warbler*	<i>Setophaga petechia</i>		
Wilson's Warbler*	<i>Cardellina pusilla</i>		
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>		

** Breeding confirmed

* Breeding possible

Common names, scientific names and taxonomic order are based on the American Birding Association Checklist of Birds of North America, Version 8.0.5, 2018.

Table 3: Chase Woods Invertebrates in Wetland 2019 and 2020

Common Name	Scientific Name	Federal Status Cosewic	Provincial Status
Cardinal Meadowhawk	<i>Sympetrum illotum</i>		
Common Whitetail	<i>Libellula lydia</i>		
Four-spotted Skimmer	<i>Libellula quadrimaculata</i>		
Woodland Skipper	<i>Ochlodes sylvanoides</i>		
Lorquin's Admiral	<i>Limenitis lorquini ilgae</i>		
Propertius Duskywing	<i>Erynmis propertius</i>		Red-list (S2)
Western Tiger Swallowtail	<i>Papilio rutulus</i>		
Obscure Bumble Bee	<i>Bombus caliginosus</i>		

Table 4: Chase Woods Vertebrates in Wetland 2019 and 2020

Common Name	Scientific Name	Federal Status Cosewic	Provincial Status
Northern Red-legged Frog	<i>Rana aurora</i>	Special Concern (1-SC SARA)	Blue-list (S3)
Pacific Treefrog	<i>Hyla regilla</i>		
Bronze (Green) Frog (Introduced)	<i>Lithobates (Rana) clamitans</i>		
Bullfrog (Introduced)	<i>Lithobates catesbeianus (Rana catesbeiana)</i>		
Long-toed Salamander	<i>Ambystoma macrodictylum</i>		
Western Terrestrial Garter Snake	<i>Thamnophis elegans</i>		
Stickle Back species (likely threespine)	<i>Gasterosteus sp.</i>		
Bats - unknown species			
North American River Otter	<i>Lontra canadensis</i>		
Raccoon	<i>Procyon lotor</i>		

Table 5: Chase Woods Avian Species List – Upland Forest 2019 and 2020

Common Name	Scientific Name	Federal Status (COSEWIC)	Provincial Status
Wood Duck**	<i>Aix sponsa</i>		
California Quail*	<i>Callipepla californica</i>		
Band-tailed Pigeon*	<i>Patagioenas fasciata</i>	Special Concern (1-SC SARA)	Blue-list (S3S4)
Anna’s Hummingbird*	<i>Calypte anna</i>		
Rufous Hummingbird*	<i>Selasphorus rufus</i>		
Turkey Vulture*	<i>Cathartes aura</i>		
Cooper’s Hawk*	<i>Accipiter cooperii</i>		
Red-tailed Hawk*	<i>Buteo jamaicensis</i>		
Great Horned Owl**	<i>Bubo virginianus</i>		
Barred Owl*	<i>Strix varia</i>		
Red-breasted Sapsucker**	<i>Sphyrapicus ruber</i>		

Downy Woodpecker*	<i>Dryobates pubescens</i>		
Hairy Woodpecker*	<i>Dryobates villosus</i>		
Northern Flicker*	<i>Colaptes auratus</i>		
Pileated Woodpecker*	<i>Dryocopus pileatus</i>		
Olive-sided Flycatcher**	<i>Contopus cooperi</i>	Special Concern (I-T SARA)	Blue-list (S3S4B)
Western Wood Pewee*	<i>Contopus sordidulus</i>		
Pacific-slope Flycatcher*	<i>Empidonax difficilis</i>		
Hutton's Vireo*	<i>Vireo huttoni</i>		
Cassin's Vireo*	<i>Vireo cassinii</i>		
Steller's Jay*	<i>Cyanocitta stelleri</i>		
Common Raven*	<i>Corvus corax</i>		
Chestnut-backed Chickadee**	<i>Poecile rufescens</i>		
Red-breasted Nuthatch*	<i>Sitta canadensis</i>		
Brown Creeper**	<i>Certhia americana</i>		
House Wren*	<i>Troglodytes aedon</i>		
Pacific Wren*	<i>Troglodytes pacificus</i>		
Bewick's Wren*	<i>Thryomanes bewickii</i>		
Golden-crowned Kinglet*	<i>Regulus satrapa</i>		
Ruby-crowned Kinglet	<i>Regulus calendula</i>		
Swainson's Thrush*	<i>Catharus ustulatus</i>		
American Robin*	<i>Turdus migratorius</i>		
European Starling*	<i>Sturnus vulgaris</i>		
Purple Finch*	<i>Haemorhous purpureus</i>		
Pine Siskin*	<i>Spinus pinus</i>		
Spotted Towhee**	<i>Pipilo maculatus</i>		
Song Sparrow**	<i>Melospiza melodia</i>		
Chipping Sparrow*	<i>Spizella passerina</i>		
Dark-eyed Junco**	<i>Junco hyemalis</i>		
Brown-headed Cowbird*	<i>Molothrus ater</i>		
Orange-crowned Warbler*	<i>Oreothlypis celata</i>		
Yellow-rumped Warbler*	<i>Setophaga coronata</i>		
Townsend's Warbler*	<i>Setophaga townsendi</i>		
Wilson's Warbler*	<i>Cardellina pusilla</i>		
Western Tanager*	<i>Piranga ludoviciana</i>		

Black-headed Grosbeak*	<i>Pheucticus melanocephaus</i>		
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** Breeding confirmed

* Breeding possible

Species common names, scientific names and order are based on the American Birding Association Checklist of Birds of North America, Version 8.0.5, 2018.