

NORTH CENTRAL WASHINGTON AUDUBON SOCIETY

ROCK ISLAND PONDS BIRD SURVEY REPORT
FEBRUARY 15, 2023

OVERVIEW

For several years, North Central Washington Audubon Society (NCWAS) has sought to bring attention to the wide variety of birds using the ponds in or near the City of Rock Island. The ponds, a few sometimes referred to as lakes, vary in size, depth, and underwater topography, and together host valuable habitats for birds and other wildlife.

The ponds are not naturally occurring. They were created and have evolved over several decades, primarily as a result of gravel mining and/or increased Rock Island Dam Pool water levels. Conditions on the ponds vary greatly, and numerous bird and other wildlife species now occupy them seasonally or as permanent residents. In addition, we suspect they also suffer from a variety of unhealthy environmental conditions which we believe should be scientifically assessed and, if confirmed, remedied.

As part of an agreement with Chelan County Public Utilities District, and in service to the values and interests mentioned above, NCWAS conducted a two year survey to document bird species currently using the ponds. The survey protocol identified six stationary points and two transects adjacent to several ponds that are representative of the mix of habitats the ponds as a whole support. Beginning in November 2020 and ending in October 2022, monthly bird counts were conducted. All species encountered by sight and/or sound were tallied.

The survey data included in this report document the wide range of bird species the ponds and adjacent lands now support. We believe they represent a resource that should be protected and enhanced over time for the benefit of wildlife, the local economy, and regional recreation.

SURVEY RESULTS SUMMARY

The data sheets that follow provide a complete list of all species, and number of individuals for each, documented over the two year span of the survey. Also included are the combined monthly details for each point and transect from which counts were made. Below are a few general observations:

- 1) A total of 118 bird species were found to use the ponds and habitats immediately adjacent to them.
- 2) The exceptionally high numbers for Wood Duck and Hooded Merganser indicate the ponds to be an especially important wintering location for these species.
- 3) Some of the larger species groups documented were: 24 species of waterfowl, 11 raptors, 7 warblers, 6 swallows, and 10 sparrows.
- 4) Extremely high numbers of common species such as American Robin, Yellow-rumped Warbler, White-crowned Sparrow, Dark-eyed Junco, and House Finch were found primarily in the terrestrial habitat covered by the 2 transects. Examples of species occurring there in smaller, though still abundant, numbers include Cedar Waxwing, Northern Flicker, and Song Sparrow. The great number of birds utilizing these areas reflects the ideal habitat the mix of trees, shrubs, and grasses there provide. This, and the large quantities of insects and fruits, such as Russian olive and golden current, found there clearly explain its value to birds.

- 5) The survey's documentation of rare or very uncommon species for Central Washington, such as Swamp Sparrow and Pacific Loon, demonstrate that in addition to species commonly found in such habitats, rarities occasionally occur there as well.
- 6) Taken as a whole, the wide diversity and large numbers of birds using the ponds and habitats immediately adjacent to them suggest Rock Island Ponds are a wildlife resource of regional significance.

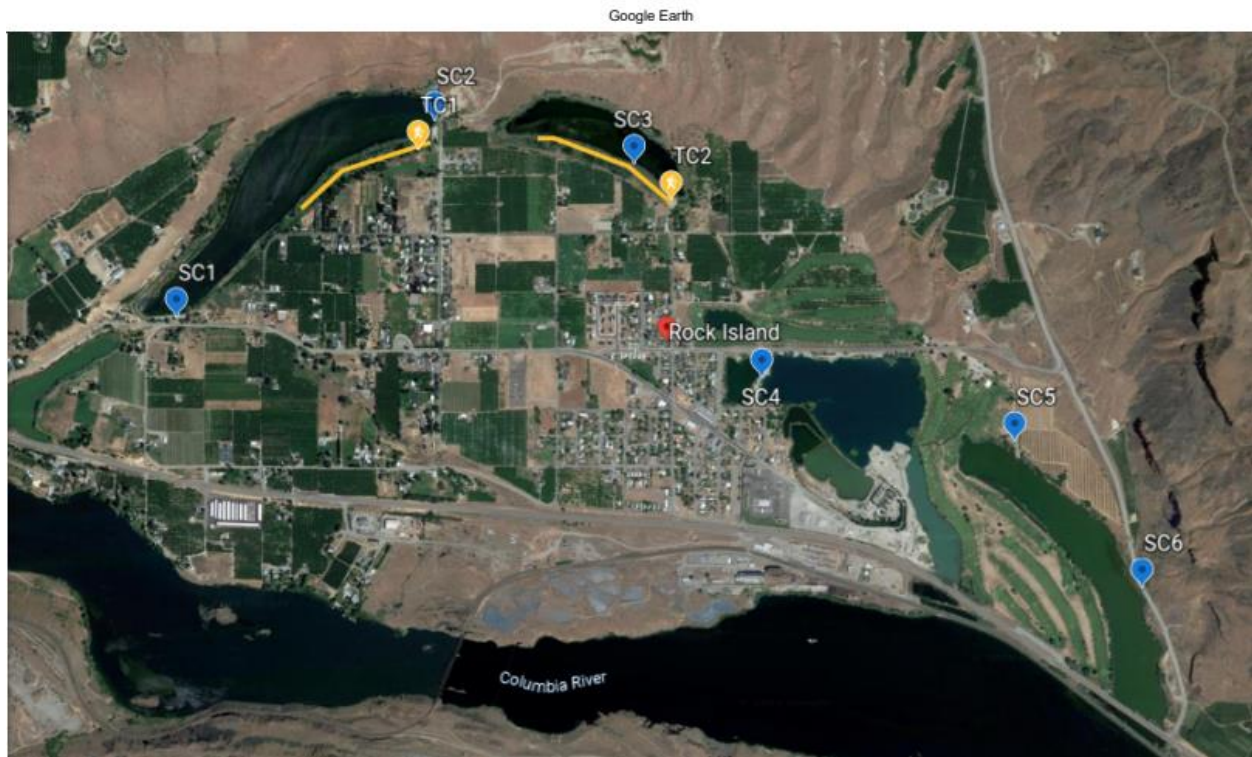
CONCLUSION

For further information regarding NCWAS's vision for the ponds at Rock Island, please go to <https://ncwaudubon.org/conservation/>, or contact Mark Johnston, NCWAS Conservation Chair, toxostoma495@gmail.com.

For questions or additional information about this report, please contact Richard Scranton, NCWAS Community Science Chair, rscran4350@yahoo.com, or Joe Veverka, NCWAS Rock Island Ponds Survey Lead, joe_everka@yahoo.com.

SURVEY MAP AND PROTOCOL

The map below shows the six stationary points and two transects from which counts were made. All survey observations were completed between 6:00am and 11:00am during Daylight Saving Time (April-Sept) and between 8:00am-1:00pm during Standard Daylight Time (Sept.-Mar.)



As mentioned above, the survey consisted of once a month counts made from six points and two transects over a two year period. Data noted for each visit included the date, names of all surveyors including the recorder, and start and end times for each stationary observation (each stationary count was a timed 10-minutes) and start and end times for each transect. The one-way distance for transect 1 was 200 meters; transect 2 was 500 meters. Other pertinent data recorded were temperature in degrees Fahrenheit, percent open water, percent cloud cover, and wind speed. If the wind speed was above a 4 on the Beaufort scale, the count was rescheduled.

ATTACHMENTS

ATTACHMENT 1

A species list showing the bird species found at the six stationary count points and two transects combined.

ATTACHMENT 2

Data sheets listing all bird species found for each stationary count point and transect over the 24 month period of the survey. The number of individuals shown for each month is a combined total of the 24 visits made to each site.

ATTACHMENT 1 -SPECIES LIST

Common Name	Count	Common Name	Count	Common Name	Count
American Coot	955	Eurasian Collared-Dove	293	Red-breasted Nuthatch	1
American Crow	30	Eurasian Wigeon	1	Red-tailed Hawk	41
American Goldfinch	78	European Starling	858	Red-winged Blackbird	397
American Kestrel	15	Evening Grosbeak	26	Ring-billed Gull	5
American Robin	1,389	Fox Sparrow	3	Ring-necked Duck	1,067
American Wigeon	151	Gadwall	111	Ring-necked Pheasant	1
Anna's Hummingbird	5	Golden Eagle	1	Rock Pigeon (Feral Pigeon)	41
Bald Eagle	10	Golden-crowned Sparrow	34	Rock Wren	1
Bank Swallow	106	Great Blue Heron	34	Ruby-crowned Kinglet	105
Barn Swallow	34	Greater Scaup	31	Ruddy Duck	77
Barrow's Goldeneye	3	Green-winged Teal	4	Savannah Sparrow	1
Belted Kingfisher	35	Hermit Thrush	15	Say's Phoebe	10
Bewick's Wren	2	Herring Gull	1	Sharp-shinned Hawk	6
Black-billed Magpie	39	Hooded Merganser	549	Snow Goose	1
Black-capped Chickadee	91	House Finch	692	Song Sparrow	287
Black-headed Grosbeak	8	House Sparrow	581	Spotted Sandpiper	2
Blue-winged Teal	1	Killdeer	33	Spotted Towhee	90
Bohemian Waxwing	1	Least Sandpiper	1	Steller's Jay	3
Brewer's Blackbird	23	Lesser Scaup	512	Swainson's Hawk	1
Brown-headed Cowbird	59	Lewis's Woodpecker	5	Swamp Sparrow	1
Bufflehead	66	Lincoln's Sparrow	9	Townsend's Warbler	1
Bullock's Oriole	25	MacGillivray's Warbler	1	Tree Swallow	365
Cackling Goose	7	Mallard	542	Turkey Vulture	3
California Quail	563	Merlin	4	Varied Thrush	16
Calliope Hummingbird	1	Mourning Dove	64	Violet-green Swallow	359
Canada Goose	1,840	Nashville Warbler	11	Warbling Vireo	2
Canvasback	14	Northern Flicker	215	Western Bluebird	1
Caspian Tern	1	Northern Harrier	1	Western Kingbird	22
Cedar Waxwing	290	Northern Rough-winged Swallow	37	Western Meadowlark	1
Chukar	2	Northern Shoveler	11	Western Sandpiper	1
Cinnamon Teal	2	Northern Shrike	2	Western Tanager	5
Cliff Swallow	134	Olive-sided Flycatcher	1	Western Wood-Pewee	4
Common Goldeneye	90	Orange-crowned Warbler	22	White-crowned Sparrow	445
Common Merganser	479	Osprey	23	Wilson's Snipe	1
Common Raven	139	Pacific Loon	2	Wilson's Warbler	3
Cooper's Hawk	8	Pacific Wren	1	Wood Duck	1,053
Dark-eyed Junco	143	Pied-billed Grebe	60	Yellow Warbler	17
Double-crested Cormorant	67	Pine Siskin	25	Yellow-rumped Warbler	534
Downy Woodpecker	11	Prairie Falcon	1		
Eastern Kingbird	31	Purple Finch	1		
				Grand Total	16,737

ATTACHMENT 2 – DATA SHEETS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Stationary Count 1													
American Coot			2	28							3		33
American Crow	1	2											3
American Goldfinch				1	2	1		2	4				10
American Kestrel												1	1
American Robin	7	1	10	1	5	3	3		10	13			53
American Wigeon			4								8		12
Anna's Hummingbird				1								1	2
Barn Swallow						1							1
Belted Kingfisher								1	3	1	1		6
Black-billed Magpie			2							2	2		6
Black-capped Chickadee			2		2				3	1		2	10
Brown-headed Cowbird					3	4	4						11
Bullock's Oriole						4	2						6
Cackling Goose											3		3
California Quail	1	1		1	4	3	3		6	1	1	4	25
Canada Goose	15	70	8	20	3			39	45	15	41	48	304
Cedar Waxwing	22		13			3							38
Common Merganser	3		6	21							60		90
Common Raven	1	1		1	2						1		6
Double-crested Cormorant											11		11
Downy Woodpecker							1						1
Eastern Kingbird						3	1	1					5
Eurasian Collared-Dove		2	4	2	5	3	6		1	1			24
European Starling	65	6	12	54	6			4	20	12	14	15	208
Gadwall			2	3						5	6		16
Hooded Merganser	6	9	12								25	9	61
House Finch	6	8	17	10	6	5	7		2	10	7	5	83
House Sparrow	10	10	5	2	15	24	14	6	8	9	11	5	119
Killdeer									3	1	3		7
Least Sandpiper									1				1
Mallard	6	1	12	1	1	3		4	7	11	42	6	94
Mallard (Domestic type)		3			2							2	7
Mourning Dove						1	1		1			1	4
Muscovy Duck (Domestic type)	1									2			3
Northern Flicker	6	1		2	2		1		1	4	5	4	26
Northern Rough-winged Swallow				3									3
Orange-crowned Warbler					1								1
Pied-billed Grebe										1		1	2
Pine Siskin					1						1		2
Red-tailed Hawk	1		1									1	3
Red-winged Blackbird		5	12	11	17	8	8		2	25	22	2	112
Ring-billed Gull											1		1
Ring-necked Duck				4									4
Ruby-crowned Kinglet										1		1	2
Song Sparrow	5	3	1								4	5	18
swallow sp.				40									40
Tree Swallow				85									85
Violet-green Swallow				30									30
Western Kingbird					1		2						3
Western Sandpiper									1				1
White-crowned Sparrow	4	1	3	5					2	8	4	8	35
Wilson's Snipe											1		1

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Wood Duck	14	7	7		2	1			5	41	24	26	127
Yellow Warbler					1				1				2
Yellow-rumped Warbler	1	2	1	1	3				3	23	3	1	38
Total SC1	175	133	136	327	84	67	53	57	129	187	304	148	1,800

Stationary Count 2

American Coot		2	15						2		5	2	26
American Crow		1			12								13
American Goldfinch					4	1	1				1		7
American Robin	32	31	10	19	5	2	5		7	33	2	22	168
American Wigeon			20	5	1						14		40
Anna's Hummingbird						1							1
Bank Swallow					2								2
Barn Swallow						5	1						6
Belted Kingfisher							2		1	1	2		6
Black-billed Magpie	1	1	1								1		4
Black-capped Chickadee	2				4					3			9
Brown-headed Cowbird					6								6
Bullock's Oriole						2	3						5
California Quail	1	2	4	2	3	5	7	1	3		38	4	70
Canada Goose		16	5	8	4			1	36		29	8	107
Cedar Waxwing	20					1							21
Cliff Swallow					1								1
Common Merganser	4		4								20	8	36
Common Raven	6	1	2		2	8				1	3	1	24
Dark-eyed Junco	20	1									2	1	24
Double-crested Cormorant						1					1		2
Eastern Kingbird							2	6					8
Eurasian Collared-Dove	15	4	7	7	10	9	15	1	7	1	5	2	83
European Starling	16	10	7	2	7	4			5	13	1	14	79
Gadwall			5	9						2	14		30
Great Blue Heron				1			1	1	1			2	6
Green-winged Teal												1	1
Hooded Merganser											53		53
House Finch	2	20	11	15	8	2	2	4	11	25	7	14	121
House Sparrow	13	12	20	8	8	16	20	6	3	5	14	8	133
Killdeer									1	1			2
Mallard	7	2	4	2		7		1	3	4	19	27	76
Merlin	1	1									1		3
Mourning Dove				2	4				2				8
Muscovy Duck (Domestic type)									3	3	7		13
Northern Flicker	3	3		2		1			3	3	4	1	20
Northern Rough-winged Swallow				1	3	3	2						9
Northern Shrike		1											1
Orange-crowned Warbler									1				1
Osprey				1	1								2
Pacific Loon											1		1
Pied-billed Grebe											6	2	8
Pine Siskin		1			1						1		3
Red-tailed Hawk	2	2					1		1		1		7
Red-winged Blackbird	1	2		2	10	3	1		4				23
Ring-necked Duck				10					1				11
Ring-necked Pheasant									1				1

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Ruby-crowned Kinglet				4					1			1	6
Say's Phoebe					1								1
Sharp-shinned Hawk										2			2
Song Sparrow	4		1							1	4	4	14
Spotted Towhee	3	1	1							1		1	7
Tree Swallow				101	4		3						108
Tree/Violet-green Swallow						15							15
Turkey Vulture				1									1
Varied Thrush	3									1			4
Violet-green Swallow				44	4								48
Western Kingbird					2		3						5
Western Tanager									2				2
Western Wood-Pewee							1						1
White-crowned Sparrow	11	5	3	5					1	6	3	6	40
Wood Duck	16	6	6						39	21	21	10	119
Yellow Warbler									1				1
Yellow-rumped Warbler	3		2	1	5				9	11		2	33
Total SC2	186	125	128	252	112	86	70	21	149	138	280	141	1,688

Stationary Count 3

American Coot	4	2	30	120	7						3	12	178
American Crow			2										2
American Goldfinch				1	2								3
American Kestrel	1								2				3
American Robin	30	4	12	2	1		1	2	15	110	7	4	188
American Wigeon	1	2	15	13						2			33
Bald Eagle												1	1
Barn Swallow					2				1				3
Belted Kingfisher		1				1			1	2	1		6
Black-billed Magpie			1						3	2	1	2	9
Black-capped Chickadee	1				2						2		5
Black-headed Grosbeak						3							3
Brown-headed Cowbird					2								2
Bufflehead					8								8
Bullock's Oriole						1	1						2
California Quail	8	30	8	3	8	1			3	13		12	86
Canada Goose	90	40	13			1		2				20	166
Canvasback		2											2
Cedar Waxwing	25		10			2	1		3				41
Common Merganser	4	22	6	1									33
Common Raven	2	2	1		1	8		2	2	1	3	2	24
Cooper's Hawk	1									1			2
Downy Woodpecker						1	1						2
Eastern Kingbird						1		3					4
Eurasian Collared-Dove		2		1	1	2			4				10
Eurasian Wigeon				1									1
European Starling	6	2							30	16	26	5	85
Gadwall		10	1	11	3					1			26
Great Blue Heron							1						1
Hermit Thrush	1											1	2
Hooded Merganser	43	36								4	11	8	102
House Finch	3		11	6	1		1	2	4	7	9	2	46
House Sparrow		5		1	4			1					11

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Killdeer								1	2	3			6
Lesser Scaup											3		3
Lincoln's Sparrow									2				2
Mallard	9	6	5	10	7		1		3		14	17	72
Mallard (Domestic type)											2		2
Mourning Dove					1	1	2	4					8
Northern Flicker	2	3		1	3				3	6	4	5	27
Northern Rough-winged Swallow				1	1								2
Northern Shrike		1											1
Orange-crowned Warbler					2				1				3
Osprey						1	1						2
Pied-billed Grebe				2			1			3	15	4	25
Pine Siskin											3		3
Red-tailed Hawk		2			1						1		4
Red-winged Blackbird			2	10	11	3	6		9				41
Ring-billed Gull											1		1
Ring-necked Duck	38	24	35	75	8						100	7	287
Ruby-crowned Kinglet				2	1					1	1		5
Say's Phoebe			1		2								3
Sharp-shinned Hawk									1				1
Sharp-shinned/Cooper's Hawk							1						1
Song Sparrow	7	14	4	5						3	6	4	43
Spotted Sandpiper						1							1
Spotted Towhee	1	1	2	1						2	1	2	10
Tree Swallow				15	6								21
Violet-green Swallow						8							8
Western Kingbird							2						2
Western Meadowlark										1			1
White-crowned Sparrow	4	1	10						1	9	13	4	42
Wood Duck	28	38	55		2			8	9	43	77	35	295
Yellow-rumped Warbler	1	3			25				4	16	7	2	58
Total SC3	310	253	223	283	112	35	20	25	103	246	311	149	2,070

Stationary Count 4

American Coot	55	12	81	99	1						37	46	331
American Crow		1											1
American Goldfinch		20			1	4			1		1	1	28
American Robin	2		12	7	6	4	2		3	11	2		49
American Wigeon				4							3		7
Belted Kingfisher							2			1	1	1	5
Black-billed Magpie										1			1
Black-capped Chickadee						1							1
Brewer's Blackbird								1					1
Brown-headed Cowbird					2	2							4
Bufflehead					2								2
Bullock's Oriole						2	1						3
Cackling Goose											4		4
California Quail				1					3	2			6
Canada Goose	74	11	49	5	16	6	150		15	10	222	4	562
Common Goldeneye	5	2	1									4	12
Common Merganser	18	9	21	17								1	66
Common Raven	2		1						1	2			6
Dark-eyed Junco										2			2

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Double-crested Cormorant	3	4	1	2									10
Eastern Kingbird							2						2
Eurasian Collared-Dove	1	4		3	2	1	3	1	6	5		5	31
European Starling	5	5		1	3	1	1		11	13	10	2	52
Gadwall	1												1
Great Blue Heron			1										1
Hooded Merganser				6							1	2	9
House Finch	6	2	4	2	5	6	3		2	6	6	2	44
House Sparrow	13	4	7	1	14	7	2	3	3	5		8	67
Killdeer							1		3				4
Lesser Scaup			1								10		11
Mallard	24	3	1	12		2				9	14	5	70
Mallard (Domestic type)	4	4		3	8								19
Mourning Dove				1					1				2
Nashville Warbler					1								1
Northern Flicker	3	3							1		3	2	12
Northern Shoveler	1												1
Osprey					1	1	4						6
Pied-billed Grebe		1	1							1	1	1	5
Pine Siskin											1		1
Red-tailed Hawk	2												2
Red-winged Blackbird		2	3	8	14	9	1		9	7			53
Ring-billed Gull									3				3
Ring-necked Duck	7										21	29	57
Rock Pigeon (Feral Pigeon)	14											5	19
Ruby-crowned Kinglet										1			1
Snow Goose											1		1
Song Sparrow	4	1		1							2	7	15
Spotted Towhee			4							1			5
Tree Swallow				2									2
Violet-green Swallow				130									130
Western Kingbird					1								1
White-crowned Sparrow		4		7						9	6	5	31
Wood Duck	40	1									1		42
Yellow Warbler					1								1
Yellow-rumped Warbler	2			4	9					10	3	1	29
Total SC4	286	93	188	316	87	46	172	5	62	96	350	131	1,832

Stationary Count 5

American Coot			22	12								3	37
American Crow			1										1
American Goldfinch				1							1		2
American Kestrel	1								1				2
American Robin	32	2	5	3	3	1	2		6	11	15	1	81
Bald Eagle	1	2											3
Bank Swallow						40							40
Barn Swallow					2	4	1						7
Barrow's Goldeneye												3	3
Belted Kingfisher	1												1
Black-capped Chickadee				1									1
Brewer's Blackbird									12				12
Brown-headed Cowbird					7	3	1						11
Bufflehead	1	1	5	13	1								21

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Bullock's Oriole						1							1
California Quail		1			2		1		8	1			13
Canada Goose	63	2	18	1	14	30		1		47			176
Caspian Tern							1						1
Cedar Waxwing					4		1						5
Cliff Swallow					9	4	85						98
Common Goldeneye	6	1	3									12	22
Common Merganser	20			2							3		25
Common Raven	3	2	2	1		3					2	2	15
Cooper's Hawk	1												1
Double-crested Cormorant			1	11			1		3	3			19
Duck sp.		10									40		50
Eurasian Collared-Dove		1					3		2				6
European Starling		3							10	1			14
Golden-crowned Sparrow	2			2							3		7
Great Blue Heron			1	1							2	3	7
Greater Scaup			1	7									8
Hooded Merganser	22	7	12	3						5	12	15	76
House Finch		4	2	6	3	1	1	2	3	11	3	3	39
House Sparrow			2			2		1	4				9
Killdeer				1				1	1	2			5
Lesser Scaup	4	10	74	31	32						1		152
Lewis's Woodpecker					4								4
Mallard	15	4	10	3	2		14	11		10	5	10	84
Northern Flicker	7	2		1					2	1	4	2	19
Northern Rough-winged Swallow						9							9
Northern Shoveler										2			2
Osprey				3	2		1						6
Pied-billed Grebe										1			1
Pine Siskin											2		2
Red-tailed Hawk		1											1
Red-winged Blackbird		1		6	8	1			7	1			24
Ring-necked Duck	6	2		11	7							12	38
Rock Pigeon (Feral Pigeon)							20						20
Ruby-crowned Kinglet		1		3	1								5
Ruddy Duck	3	2							1		2	13	21
Sharp-shinned Hawk										1		1	2
Song Sparrow	1	2	6			1					2	5	17
Spotted Towhee	1									1		1	3
Tree Swallow					12								12
Turkey Vulture						1							1
Violet-green Swallow					2	6							8
Western Kingbird						4	2						6
White-crowned Sparrow	25	5	4	3						6	9	3	55
Wilson's Warbler									1				1
Wood Duck	6	4	4							3	42	4	63
Yellow Warbler					1	1	1						3
Yellow-rumped Warbler	3	1		6	15					15		1	41
Total SC5	224	71	173	132	131	112	135	16	61	122	148	94	1,419

Stationary Count 6

American Coot				12							4	6	22
American Goldfinch		1								1	2		4

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
American Kestrel										1	1		2
American Robin		8		3	5	2	1		1	17			37
Bank Swallow						60							60
Barn Swallow					4				9				13
Belted Kingfisher											1		1
Black-billed Magpie			3						2	1	1		7
Brown-headed Cowbird					4								4
Bufflehead		2		4	4							20	30
California Quail				1			6			8	1		16
Canada Goose	5	35	5	4	23	50		5	6				133
Canvasback		7	2										9
Chukar			1										1
Cinnamon Teal					2								2
Cliff Swallow					32								32
Common Goldeneye	3	3	10	6								34	56
Common Merganser	80	4	86	2							3	8	183
Common Raven	2	2	2		2						1		9
Dark-eyed Junco											2		2
Double-crested Cormorant		1	2	5	5	1	1		5			1	21
Eurasian Collared-Dove								1					1
European Starling	20	5								80			105
Golden-crowned Sparrow	2												2
Great Blue Heron	1	1	3	2					1	2	3	4	17
Greater Scaup					11						12		23
Green-winged Teal									2				2
Herring Gull	1												1
Hooded Merganser	35	31	37	4							8	24	139
House Finch	3	8	4	4	1	3			4	9	7	2	45
hummingbird sp.							1						1
Killdeer							1			2	1		4
Lesser Scaup	15	28	94	101	21	5	7				35	40	346
Mallard	11	14	11	2	5	5	3				6	12	69
Mourning Dove							1						1
Northern Flicker	3	5	1	1					2	3		1	16
Northern Rough-winged Swallow					1								1
Northern Shoveler					3				5				8
Pine Siskin											4		4
Prairie Falcon				1									1
Red-breasted Nuthatch					1								1
Red-tailed Hawk	1												1
Red-winged Blackbird			3	16	21	1	5			1			47
Ring-necked Duck	12	7	93	7	4						3	32	158
Rock Wren											1		1
Ruby-crowned Kinglet												2	2
Ruddy Duck	3	4	30								4	15	56
Say's Phoebe					1								1
Song Sparrow	4	2	1	1						2	3	7	20
Tree Swallow					1								1
Violet-green Swallow				6									6
Western Kingbird					1								1
White-crowned Sparrow	5	1		7					8	7	5	5	38
Yellow-rumped Warbler				3	13				2	14			32
Total SC6	206	169	388	192	165	127	26	6	47	148	108	213	1,795

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Transect Count 1													
American Coot			15	15					1		5		36
American Crow		1			1	1			1				4
American Goldfinch				2	2	1				1	1		7
American Kestrel	1												1
American Robin	60	81	35	17	8	5		1	63	55	15	30	370
American Wigeon			15		2						1		18
Bald Eagle	2			2									4
Barn Swallow					2								2
Belted Kingfisher									1	1	2		4
Black-billed Magpie			2								3		5
Black-capped Chickadee	2	5	1	3	4	1			1	4	5	3	29
Black-headed Grosbeak						1							1
Brown-headed Cowbird					10								10
Bullock's Oriole						2							2
California Quail	5	12	14	3	9				6	5	5	50	109
Calliope Hummingbird						1							1
Canada Goose		4	16		2	2					29	9	62
Cedar Waxwing	25	28	12			8			2				75
Chukar					1								1
Common Merganser	4	2	4								6		16
Common Raven	8	1	3		3	4		2		2	3	2	28
Dark-eyed Junco	10	4	5								5	19	43
Double-crested Cormorant				2	1								3
Downy Woodpecker	1											1	2
Eastern Kingbird								2					2
Eurasian Collared-Dove	15	4	7	11	10	7			5	4	2		65
European Starling	3	35	5	1	8	2			11	7	5	12	89
Evening Grosbeak			8									8	16
Fox Sparrow					1								1
Gadwall			5	3							1		9
Golden Eagle			1										1
Great Blue Heron										1			1
Green-winged Teal											1		1
Hermit Thrush	2		1								2	1	6
Hooded Merganser		2									21		23
House Finch	19	4	25	3	4	3		1	11	19	13	15	117
House Sparrow	29	5	25		15	2			2	7	10	8	103
hummingbird sp.									1				1
Killdeer									1				1
Lincoln's Sparrow					1								1
Mallard	1					2				2	3	9	17
Mallard (Domestic type)											2		2
Merlin											1		1
Mourning Dove				2	10	1		3	3		2	2	23
Muscovy Duck (Domestic type)										3			3
Nashville Warbler					7								7
Northern Flicker	8	7		1	2	1			3	2	2	4	30
Northern Rough-winged Swallow				1	5								6
Orange-crowned Warbler					1				4				5
Osprey						1							1
Pacific Loon											1		1

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pacific Wren				1									1
Pied-billed Grebe											1	2	3
Pine Siskin					4								4
Purple Finch											1		1
Red-tailed Hawk	1	1	2	1	2					1	1	2	11
Red-winged Blackbird					7					3	2	17	29
Ring-necked Duck				3									3
Rock Pigeon (Feral Pigeon)									2				2
Ruby-crowned Kinglet	1	1		12	23					9	2	2	50
Song Sparrow	23	4	3							4	6	12	52
Spotted Towhee	1	4	2		1				1	5	3	5	22
Steller's Jay	2	1											3
Townsend's Warbler					1								1
Tree Swallow				80	8								88
Varied Thrush	4	5	2									1	12
Violet-green Swallow				5	3	6							14
Western Bluebird		1											1
Western Kingbird					1								1
Western Tanager									1	1			2
Western Wood-Pewee						1							1
White-crowned Sparrow	1	5	4	9	2				3	10	12	13	59
Wilson's Warbler					1								1
Wood Duck	5	5			2				10	3	5	4	34
Yellow Warbler					1				3				4
Yellow-rumped Warbler	10	5		4	15				5	14	4	6	63
Total TC1	243	227	212	181	180	52	0	9	141	163	183	237	1,828

Transect Count 2

American Coot	10	6	53	165	12				1		20	25	292
American Crow			2		2		2						6
American Goldfinch	1	1		3	6	2			1		2	1	17
American Kestrel	2	2			1						1		6
American Robin	81	20	43	26	19	2	12	1	60	145	14	20	443
American Wigeon	3	2	23	10	1					2			41
Anna's Hummingbird				1					1				2
Bald Eagle	1				1								2
Bank Swallow					4								4
Barn Swallow					2								2
Belted Kingfisher		1	1						1	2	1		6
Bewick's Wren											1	1	2
Black-billed Magpie	3			2							2		7
blackbird sp.									20				20
Black-capped Chickadee	5	2	3	2	3	1		1	3	5	5	6	36
Black-headed Grosbeak						2	2						4
Blue-winged Teal					1								1
Bohemian Waxwing		1											1
Brewer's Blackbird									10				10
Brown-headed Cowbird					11								11
Bufflehead				1	4								5
Bullock's Oriole						3	3						6
California Quail	12	40	35	10	15	4	2	8	16	40	11	45	238
Canada Goose	90	12	189		2					15	2	20	330
Canvasback		3											3

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Cedar Waxwing	30	40	20			1	4		10	1	1	3	110
Cliff Swallow					3								3
Common Merganser	4	20	6										30
Common Raven	3	2	2	1	5	3			2	2	5	2	27
Cooper's Hawk	1		1								1	2	5
Dark-eyed Junco	10	19	21								7	15	72
Double-crested Cormorant					1								1
Downy Woodpecker				1	3			2					6
Downy/Hairy Woodpecker				1									1
Eastern Kingbird						8	2						10
Eurasian Collared-Dove	1	2	9	5	7	10	4	15	3	2		15	73
European Starling	120		7	2	5	1	2		20	8	56	5	226
Evening Grosbeak	5	2										3	10
Fox Sparrow				1							1		2
Gadwall	3	3	14	5	4								29
Golden-crowned Sparrow	2	8	4	3					1		2	5	25
Great Blue Heron	1												1
Hermit Thrush	3	1	1	1								1	7
Hooded Merganser	22	15	20							5	15	9	86
House Finch	20	15	43	4	9	7			23	25	36	15	197
House Sparrow	25	12	29	4	12	16	6	4	10		1	20	139
Killdeer					1				2	1			4
Lewis's Woodpecker					1								1
Lincoln's Sparrow				1	4				1				6
MacGillivray's Warbler									1				1
Mallard	20	3	8	2	4		2				13	8	60
Mallard (Domestic type)											2		2
Mourning Dove				2	10	1	3	1	1				18
Nashville Warbler					3								3
Northern Flicker	8	9	4	6	5	1		2	5	6	14	5	65
Northern Harrier	1												1
Northern Rough-winged Swallow				1	1	5							7
Olive-sided Flycatcher						1							1
Orange-crowned Warbler					8				4				12
Osprey					3	2			1				6
Pied-billed Grebe			2	1					2	3	5	3	16
Pine Siskin				2	3						1		6
Red-tailed Hawk	3	2			5				1			1	12
Red-winged Blackbird	4		4	11	26	10	4		2	7			68
Ring-necked Duck	32	20	69	84	13					2	109	180	509
Ruby-crowned Kinglet		1		10	14					4	3	2	34
Savannah Sparrow									1				1
Say's Phoebe				1	4								5
scoter sp.			3										3
Sharp-shinned Hawk			1										1
Song Sparrow	20	15	11	8	2				2	5	15	30	108
Spotted Sandpiper									1				1
Spotted Towhee	6	6	5	1						4	9	12	43
Swainson's Hawk					1								1
Swamp Sparrow	1												1
Tree Swallow				41	7								48
Turkey Vulture				1									1
Violet-green Swallow				115									115

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Warbling Vireo									2				2
Western Kingbird					3								3
Western Tanager					1								1
Western Wood-Pewee						1	1						2
White-crowned Sparrow	10	4	42	10	6			2	14	34	4	19	145
White-crowned Sparrow (Gambel's)				6									6
Wilson's Warbler						1							1
Wood Duck	60	20	34	8	8				24	31	123	65	373
Yellow Warbler					3	1			2				6
Yellow-rumped Warbler	4	1		4	163				10	42	10	6	240
Total TC2	627	310	709	563	432	83	49	36	258	391	492	544	4,494
Total of all SC's and Transects	2,257	1,381	2,157	2,246	1,303	608	525	175	950	1,491	2,176	1,657	16,926