

McIntyre Marsh Bird Banding Station Final Report 2012



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Society of Yukon Bird Observatories
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The 2012 operation of the McIntyre Marsh Bird Banding Demonstration Site was made possible due to support from the following organizations.



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Cover Photo: Tree Swallow (Photo – Manda Maggs)

The McIntyre Marsh Bird Banding Demonstration Site is a project of the Society of Yukon Bird Observatories (SOYBO; PO Box 30056, Whitehorse, YT, Y1A 5M2). SOYBO was established during 2010 to formalize the operation of the Yukon Bird Observatories. The objectives of SOYBO are: (1) contribute to the conservation of migratory birds in western North America, (2) to make the public aware of the avifauna of the Yukon and educate the public, and, (3) to work with other societies, organizations and individuals with similar objectives. For further information, email – teslin.bird.banding@gmail.com

EXECUTIVE SUMMARY

The McIntyre Marsh Bird Banding Demonstration Site completed its fourth consecutive year of spring operation during 2012. The field station operated for a total of 33 days between April 20 and June 3. The demonstration site operates sporadically during the spring migration season and does not follow a standardized monitoring protocol as is done at the other Yukon Bird Observatories field stations at Teslin Lake and Albert Creek. A primary objective of the demonstration site is to provide a setting for the public to visit and be exposed to the diversity of birds in the Yukon and the methods used to monitor them. The close proximity to downtown Whitehorse makes this possible and serves to attract more visitors than the Teslin Lake and Albert Creek bird observatories which require substantially more travel. The methods used for capturing birds at the site are similar to the protocols used at the other field stations; 13 mist nets are used at the site. During 2012, mist netting resulted in the capture and banding of 2,381 birds of 42 species. The top 5 species banded during 2012 included the following; White-crowned Sparrow (620), Dark-eyed Junco (490), Tree Swallow (235), Yellow-rumped Warbler (179) and Wilson's Warbler (174). The data collected (banding and general observations) continued to reinforce that McIntyre Marsh may be a suitable site to operate a full scale migration monitoring station. In 2012, the station was operated primarily by volunteers; 24 individuals totaled 332 volunteer hours. The station was successful in attracting high numbers of visitors; a total of 311 individuals visited the site, totaling over 715 visitor hours. Included in the visitor totals were 10 school groups from various schools in the Whitehorse area and a group from Copper Ridge Place.

ACKNOWLEDGEMENTS

The following list summarizes the individuals who played a role in the 2012 operation of the McIntyre Marsh Bird Banding Demonstration Site.

Ben Schonewille.....Bander In Charge, Station Advertising, Data Entry/Analysis/Reporting
Ted Murphy-Kelly..... Assistant Bander In Charge, Report Editing
Tami Hamilton.....Assistant Bander In Charge

Cameron Eckert (YG-Environment), Pam Sinclair (CWS) and Jukka Jantunen provided advice and assisted with project logistics. Board members of the Society of Yukon Bird Observatories helped administer the Yukon Bird Observatories. Yukon Electrical (Richard Kerr) provided access to the site where the station is located.

The following volunteers assisted with the operation of the observatory; over 10 days – Nick Guenette; 5 to 10 days – Anne McLeod, Maxime G.; less than 5 days – Tami Hamilton, John Meikle, Jukka Jantunen, Manda Maggs, Mary Whitley, Hilary Cooke, Claudia Riveros, Claudia Wickert, Mason Pritchett, Mike Dunn, Gerry Whitley, Tracy Allard, Brian Charles, Shay Hamilton, Mike Settingington, Hollie-Murphy-Kelly, Shailyn Drukis and Devon Yacura.

The 2012 operation of the McIntyre Marsh Bird Banding Demonstration Site would not have been possible without the support of the following organizations / groups; Environment Canada (Canadian Wildlife Service), Ducks Unlimited Canada, Alaska Pipeline Project, Yukon Environment, Yukon Bird Club and EDI Environmental Dynamics Inc. In particular, EDI provided two field ornithologists (including the Bander In Charge) to operation the station on a number of weekday mornings to allow for an increased number of school groups to visit the site.

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1.0 Introduction

The McIntyre Marsh Bird Banding Demonstration Site operated during the spring migration season in 2012. The station completed its fourth spring season of operation thanks to support from several government and non-government agencies. The station was initiated in the spring of 2009 to provide an easily accessible location for members of the public to receive exposure to migratory birds and the methods used to monitor them.

The goals of the McIntyre Marsh Bird Banding Demonstration Site are to:

- Provide a setting for the public (including school groups) to learn about the Yukon's avifauna and the methods used to monitor songbirds.
- Test the feasibility of operating a bird banding / migration monitoring station at McIntyre Marsh.
- Provide training opportunities for interested members of the public and students.

Bird banding serves as a method of carrying out research on birds which is shared through an international database. This is due to the possibility of a banded bird being recaptured across international borders. Many of the birds banded at McIntyre Marsh are highly migratory spending the winter months as far south as Central and South America. In addition to the potential knowledge regarding band recoveries, the demonstration site also serves to continue gathering baseline data of birds (and their migration) in the southern Yukon. Due to the large landmass of the territory, and the relatively few advanced birders in the Yukon, there is still a great deal to be learned regarding the bird life of the Yukon. Bird banding is a highly valuable research method and a form of monitoring which serves to better understand the distribution of many of the Yukon's bird species, many of which are considered uncommon or rare.

Due to the close proximity to downtown Whitehorse, the demonstration site also plays a role in education as a place where the public, volunteers and students can take part in a unique, community based research project. Across the Yukon (and the world), there are numerous people who have an interest in birds; however, many find it a daunting task to learn the various species. For such people, a visit to the demonstration site can be extremely rewarding as they often have the opportunity to view a wide variety of bird species up close. Many of these species are very difficult to observe naturally; however, through the use of mist nets, the highly trained individuals working at the demonstration site have the ability to identify these species and allow the public to view them up close.

2.0 Methods

As the demonstration site is relatively new and the activities have not yet been standardized, a detailed bird monitoring protocol has not yet been prepared. The primary method of monitoring the movement of birds through the study site is the use of mist nets for the purpose of capturing and banding birds. In 2012, the station operated with 13 mist nets, all of which were constructed of 30 mm mesh and were 12 m in length. Although mist netting did not always begin at sunrise (which is standard practice for other stations), efforts were made to open the station as early as possible. The number of nets used on a daily basis was determined by a number of factors including bird activity, weather and availability of qualified personnel. Mist nets were checked for birds every 15 to 30 minutes and all birds captured were extracted by qualified individuals. Individual birds were then placed in breathable cloth bags and transported to the central bird processing area.

Once at the processing area, all birds were identified to species and banded with a uniquely numbered leg band. A wide variety of other information was collected from each bird including; age, sex, wing length, fat score, breeding condition, bird status, banding date/time and the bander's initials. Representative photos were also taken from a portion of the birds processed. The birds are promptly released after all data is collected.

To supplement the banding data collection, incidental observations were also recorded for birds within and/or flying over the site. Using the number of birds banded, recaptured and observed, estimated totals were derived for all species observed on each of the station's operation.

As the primary goal of the study is to provide opportunities for the public to become involved, the public was able to partake where possible. Extracting and handling of birds requires extensive experience doing so and therefore the public was not able to handle the birds. However, small groups of people were regularly taken on net rounds to allow them to view up close how birds are captured in the mist nets and extracted. The public was also allowed to actively watch the bird processing procedure and frequently asked questions about the birds and the banding process. At times, members of the public also assisted the bander by scribing the data onto the data sheets.

2.1 Study Site

The station is located at the area known locally as McIntyre Marsh near the junction of the Copper Haul Road and the Fish Lake Road. McIntyre Creek flows through the marsh which has a wide braided channel with numerous areas of standing water. Vegetation in the area is primarily willow with open areas dominated by various grasses and sedges. Large trees are relatively sparse within the mist netting area and are primarily limited to a thin strip of large white spruce along the margin on the study site. A defining characteristic of the site is the presence of standing dead snags within the marsh; these are likely a result of the beaver dam impoundment of the area in the past.

3.0 Results & Discussion

During 2012, 2,381 birds of 42 species were banded and 86 species were observed (Tables 1 -3, Figure 1). The all time total number of birds banded at McIntyre Marsh is now 5,295 individuals of 55 species (Table 4). Each component of the 2012 data is summarized and presented in the following subsections.

The total number of birds banded during 2012 was the highest to date since the station began operation in 2009 and a number of high banding totals were surpassed (Table 5). The early arrival of the sparrows during 2012 resulted in very high captures of species such as White-crowned Sparrow and Dark-eyed Junco; the number of White-crowned Sparrow was nearly double of the previous high of 342 banded during 2010. American Tree Sparrow followed suite with 151 individuals banded, surpassing the previous high of 75 in 2010.

Cool weather conditions during mid May resulted in high numbers of swallows present in the marsh which resulted in a high capture rate of these species. Collectively, over 350 Tree and Violet-green swallows were banded surpassing the previous high combined total of 192 during 2009. Bank Swallow (30) and Barn Swallow (1) were also banded for the first time at the station. The capture of high numbers of swallows require very specific weather conditions; when cool temperatures persist into the late morning, high numbers of swallows can be observing hawking insects low over the marsh and are subsequently captured in the mist nets.

The number of warblers banded was similar to past years, particularly for Wilson's and Yellow-rumped warblers which are the most common warblers banded at the site.

3.1 Migration Timing

Generalized migration timing for temperate, neotropical and irruptive migrants/residents during the spring of 2012 is presented in Figure 2¹. In spring, there is a notable difference in migration timing between temperate and neotropical migrants, with the latter typically arriving later in the season. This is presumably due to a number of factors including diet (most neotropical migrants are insect eaters as compared to seed eaters) and distance required for migration (temperate migrants winter closer).

For species which are encountered regularly during spring migration, it is possible to investigate arrival dates between years through a combination of available banding and general observation data (Table 6). Most species show a high degree of consistency in arrival dates between years; however, there is a small degree of variation which is likely a result of varying weather conditions between years.

¹ Temperate migrants are species which primarily overwinter in the temperate zone of North America (i.e., north of Mexico). Neotropical migrants include species which overwinter in the tropics (i.e., south of the USA). Irruptive migrants/residents are those species which migrate irregularly or may be year round residents in the Yukon.

3.2 Band Returns & Recoveries

Band returns (individuals banded at the site in previous years) typically represent individuals which breed within the study site as the likelihood of re-trapping migrants is relatively low. During 2012, the station had 9 band returns representing 6 species (Table 7). As the station is relatively new, all band returns were of birds banded at the site during 2009, 2010 and 2011. Species very well represented in the band returns provide an indication of the breeding birds at McIntyre Marsh; Common Yellowthroat, and Lincoln's Sparrow are among the most common breeding bird species within and adjacent to the study site.

Foreign band recoveries are a very infrequent event; to date there has been one foreign band recovery at the station. A Yellow-rumped "Myrtle" Warbler banded in Portland, Oregon in March 2008 was recaptured at McIntyre Marsh on May 4, 2009 and subsequently released. Furthermore, an American Green-winged Teal banded at McIntyre Marsh on May 14, 2009 was shot near Los Banos, California on October 28, 2009. Although not foreign band recoveries, two Rusty Blackbirds banded by Pam Sinclair (CWS) at the Whitehorse Landfill during 2009 were recaptured at McIntyre Marsh during mid May 2012.

3.3 Visitors and Volunteers

The demonstration site was very successful in attracting visitors during 2012, in total 312 different individuals visited the site and totaled over 716 visitor hours (Table 8). Included in the visitor totals were 10 school groups from the Whitehorse area and a group from Copper Ridge Place who visited the site. These visitor numbers are substantially higher than previous years due to the increased advertising of the project and the increased number of school groups hosted at the station. Overall, these visitor rates are very high as compared to the Teslin Lake and Albert Creek bird observatories which typically total 100 to 150 visitor hours per year. Through the demonstration site, it is possible to increase the public awareness of migratory birds and why it is important to conserve them and their habitats.

During 2012, the operation of the demonstration site was completed primarily by volunteers. Aside from providing visitor opportunities, the station also provides an opportunity for volunteer involvement. Individuals willing to attend the station on a number of occasions have the opportunity to receive training in the techniques used to capture and band birds (under the supervision of permitted/qualified individuals). Note that the paid individuals who operated the station were a result of a partnership with EDI Environmental Dynamics Inc. who provided two staff biologists (including the Bander In Charge) to operate the station on 7 weekday mornings to host local school groups.

The Society of Yukon Bird Observatories has begun to use social media to promote the field stations (including McIntyre Marsh) by providing regular station updates and photos of birds banded and observed. A Facebook group page (Yukon Bird Observatories) now has 163 members and as of December 2012, the blog page (<http://yukonbirdobservatories.blogspot.com>) has had over 10,000 page views including nearly 1,000 page views from April – June 2012 when McIntyre Marsh was operating.

4.0 Conclusion & Recommendations

The bird monitoring data collected at the demonstration site have continued to reinforce that McIntyre Marsh is an important stopover and breeding habitat for migratory birds within the City of Whitehorse. The productive marsh habitat and diversity of nearby habitats provide suitable habitat for a high diversity of birds. Although the total number of birds banded is less than that of the Teslin Lake and Albert Creek bird observatories, these results are not directly comparable. The demonstration site operates with far fewer mist nets and is not open on a daily basis. If these protocols were to be mimicked at McIntyre Marsh, the number and diversity of birds banded would likely increase substantially.

The number of visitors and total visit hours totaled at the site in 2012 are representative of the value of the demonstration site as a public education opportunity. Individuals who visit the site leave with an increased understanding of the Yukon's bird life and a level of environmental stewardship which has a positive effect well beyond the conservation of birds. For children who visit the site, having the opportunity to see songbirds "up close and personal" often has a lasting effect and may lead to a future appreciation of not only birds, but our natural surroundings as a whole.

4.1 Recommendations

For 2013, it is hoped that adequate personnel and resources can be made available for the operation of the demonstration site during the spring migration season. If possible, it would be advantageous to operate the station on more days during the migration period to boost the number of visitors and school groups which may visit the site. More extensive coverage would also increase the utility of the bird monitoring data collected. Due to the sufficient number of qualified volunteers at the station, it may be possible to add a small number of mist nets in different habitat types around the marsh to provide a higher diversity of bird species to be captured and banded. If possible, efforts should also be made to include some sort of standardized monitoring protocol for the station. This may include the collection of observations outside of the immediate mist netting area through methods such as a fixed duration census route or point count locations.

Appendix A - Figures

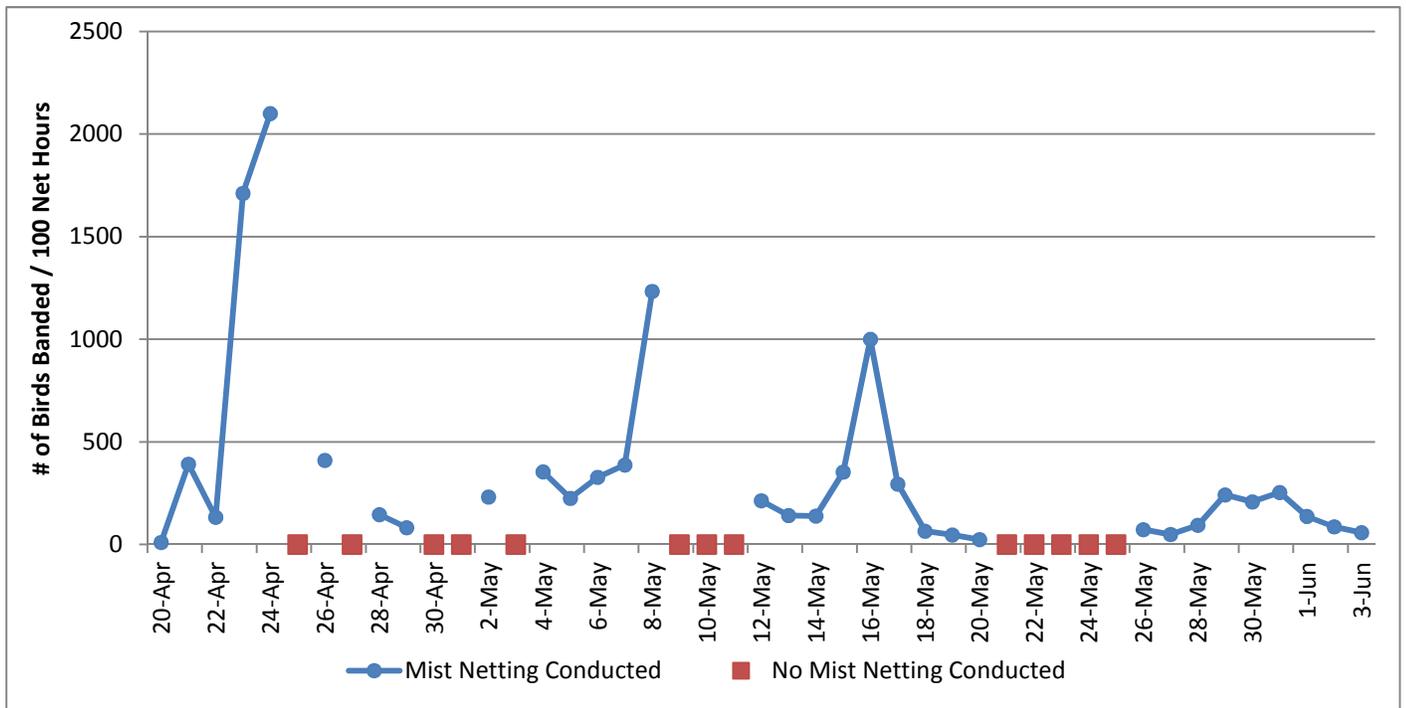


Figure 1. Summary of birds banded per 100 net hours during the spring of 2012.

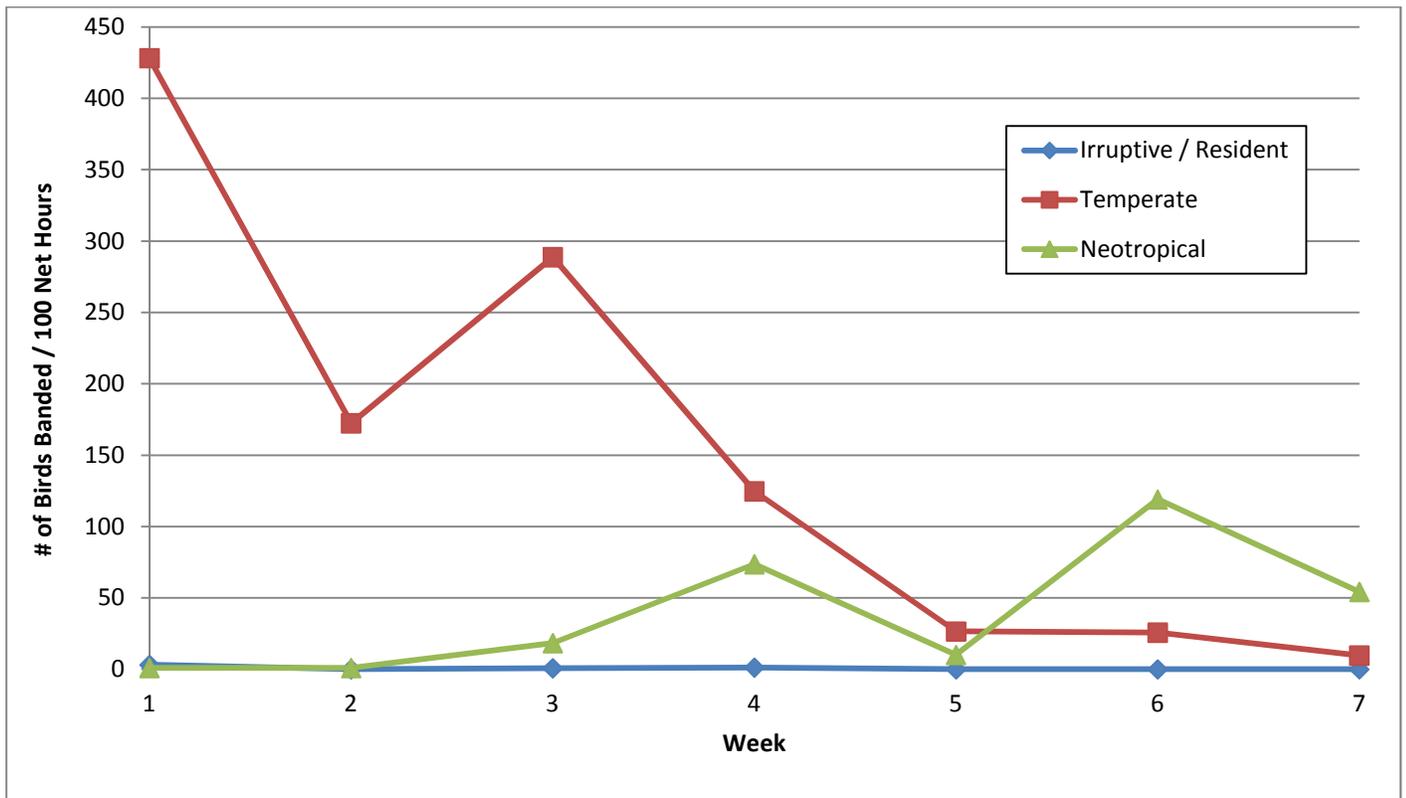


Figure 2. Migration timing for irruptive migrants/residents, temperate and neotropical migrants banded during the spring of 2012.

Appendix B – Tables

Table 1. Summary statistics of the 2012 spring season.

Week	Date	Days Operated		Birds Banded				Total Species Observed
		ETs Only	Mist Netting	#	Species	Net Hours	#/100 Net Hours	
1	21 – 27 Apr	2	5	415	9	96.75	428.94	34
2	28 Apr – 4 May	NA	4	361	15	208.25	173.35	45
3	5 – 11 May	NA	4	385	16	125.00	308.00	43
4	12 – 18 May	NA	7	756	27	378.50	199.74	59
5	19 – 25 May	NA	2	18	7	49.00	36.73	20
6	26 May – 1 Jun	NA	7	400	24	276.25	144.80	56
7	2 – 3 Jun	NA	2	46	11	71.75	64.11	42
ALL		2	31	2,381	42	1205.50	197.52	86

Table 2. Birds banded during the spring of 2012.

Common Name	Latin Name	Individuals Banded	
		#	# / 100 Net Hrs
Sharp-shinned Hawk	<i>Accipiter striatus</i>	1	0.08
Northern Harrier	<i>Circus cyaneus</i>	1	0.08
Solitary Sandpiper	<i>Tringa solitaria</i>	7	0.58
Wilson's Snipe	<i>Gallinago delicata</i>	5	0.41
Alder Flycatcher	<i>Empidonax alnorum</i>	8	0.66
Hammond's Flycatcher	<i>Empidonax hammondii</i>	3	0.25
Say's Phoebe	<i>Sayornis saya</i>	1	0.08
Tree Swallow	<i>Tachycineta bicolor</i>	235	19.49
Violet-green Swallow	<i>Tachycineta thalassina</i>	116	9.62
Bank Swallow	<i>Riparia riparia</i>	30	2.49
Barn Swallow	<i>Hirundo rustica</i>	1	0.08
Black-capped Chickadee	<i>Poecile atricapillus</i>	7	0.58
Boreal Chickadee	<i>Poecile hudsonicus</i>	1	0.08
Ruby-crowned Kinglet	<i>Regulus calendula</i>	64	5.31
Hermit Thrush	<i>Catharus guttatus</i>	1	0.08
Gray-cheeked Thrush	<i>Catharus minimus</i>	1	0.08
Swainson's Thrush	<i>Catharus ustulatus</i>	3	0.25
American Robin	<i>Turdus migratorius</i>	11	0.91
Varied Thrush	<i>Ixoreus naevius</i>	15	1.24
American Pipit	<i>Anthus rubescens</i>	10	0.83
Northern Waterthrush	<i>Parkesia noveboracensis</i>	6	0.50
Tennessee Warbler	<i>Oreothlypis peregrine</i>	1	0.08
Orange-crowned Warbler	<i>Oreothlypis celata</i>	25	2.07
Common Yellowthroat	<i>Geothlypis trichas</i>	27	2.24
Yellow Warbler	<i>Setophaga petechia</i>	23	1.91
Blackpoll Warbler	<i>Setophaga striata</i>	10	0.83
Yellow-rumped 'Myrtle' Warbler	<i>Setophaga coronata</i>	179	14.85
Yellow-rumped Warbler integrade	<i>Setophaga coronate</i>	1	0.08
Wilson's Warbler	<i>Cardellina pusilla</i>	174	14.43
American Tree Sparrow	<i>Spizella arborea</i>	151	12.53
Chipping Sparrow	<i>Spizella passerina</i>	8	0.66

Common Name	Latin Name	Individuals Banded	
		#	# / 100 Net Hrs
Savannah Sparrow	<i>Passerculus sandwichensis</i>	43	3.57
Fox Sparrow	<i>Passerella iliaca</i>	7	0.58
Lincoln's Sparrow	<i>Melospiza lincolnii</i>	55	4.56
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	620	51.43
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	33	2.74
Dark-eyed 'Slate-colored' Junco	<i>Junco hyemalis</i>	490	40.65
Dark-eyed 'Oregon' Junco	<i>Junco hyemalis</i>	1	0.08
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	1	0.08
Rusty Blackbird	<i>Euphagus carolinus</i>	1	0.08
Purple Finch	<i>Carpodacus purpureus</i>	3	0.25
Common Redpoll	<i>Acanthis flammea</i>	1	0.08
TOTAL		2,381	197.52

Table 3. McIntyre Marsh 2012 estimated total data summary.

Species	ALL OBS		First Date	Last Date	HIGH COUNT	
	# of Days	Bird Days			#	Date
Common Loon	2	2	13-May	20-May	1	both days
Greater White-fronted Goose	1	150	23-Apr	-	150	23-Apr
Canada Goose	3	16	23-Apr	27-May	12	23-Apr
Trumpeter Swan	3	16	25-Apr	29-Apr	8	25-Apr
Tundra Swan	5	197	22-Apr	2-May	115	23-Apr
American Wigeon	16	28	24-Apr	3-Jun	3	many days
Mallard	30	421	20-Apr	3-Jun	26	24-Apr
Blue-winged Teal	1	3	27-May	-	3	27-May
Northern Shoveler	2	5	15-May	27-May	4	27-May
Northern Pintail	3	20	28-Apr	15-May	16	28-Apr
American Green-winged Teal	21	269	28-Apr	3-Jun	28	12-May
Lesser Scaup	1	2	27-May	-	2	27-May
Bufflehead	1	2	28-Apr	-	2	28-Apr
Barrow's Goldeneye	25	79	23-Apr	3-Jun	8	17-May
American Kestrel	4	4	24-Apr	29-Apr	1	all days
Bald Eagle	30	82	20-Apr	3-Jun	9	3-Jun
Northern Harrier	13	18	23-Apr	18-May	3	5-May
Sharp-shinned Hawk	6	7	21-Apr	31-May	2	21-Apr
Red-tailed Hawk	9	16	20-Apr	3-Jun	3	20 / 26 Apr
Merlin	2	2	21-Apr	16-May	1	both days
Peregrine Falcon	1	1	13-May	-	1	13-May
Osprey	2	2	29-Apr	2-May	1	both days
Ruffed Grouse	1	1	29-Apr	-	1	-

Species	ALL OBS		First Date	Last Date	HIGH COUNT	
	# of Days	Bird Days			#	Date
Lesser Yellowlegs	12	12	5-May	2-Jun	1	all days
Solitary Sandpiper	18	32	4-May	3-Jun	4	15-May
Spotted Sandpiper	4	5	26-May	30-May	2	29-May
Upland Sandpiper	1	3	16-May	-	3	-
Pectoral Sandpiper	1	2	6-May	-	2	6-May
Long-billed Dowitcher	1	26	17-May	-	26	17-May
Wilson's Snipe	24	86	27-Apr	3-Jun	6	12-May
Mew Gull	4	7	4-May	17-May	2	many days
Herring Gull	28	184	20-Apr	3-Jun	14	15-May
Bonaparte's Gull	5	10	7-May	1-Jun	3	7-May
Great Horned Owl	1	1	29-Apr	-	1	29-Apr
Belted Kingfisher	23	35	26-Apr	2-Jun	2	many days
Yellow-bellied Sapsucker	1	1	3-Jun	-	1	-
Northern Flicker	17	24	28-Apr	31-May	2	many days
Olive-sided Flycatcher	2	2	13-May	26-May	1	both days
Western Wood-Pewee	6	10	26-May	3-Jun	3	27-May
Yellow-bellied Flycatcher	1	1	3-Jun	-	1	-
Alder Flycatcher	6	13	27-May	3-Jun	7	7-Jan
Hammond's Flycatcher	5	7	6-May	3-Jun	2	6 / 26 May
Say's Phoebe	2	2	6-May	14-May	1	both days
Gray Jay	3	4	4-May	6-May	2	4-May
Black-billed Magpie	7	8	29-Apr	1-Jun	2	27-May
Common Raven	28	118	20-Apr	3-Jun	8	many days
Tree Swallow	14	1518	27-Apr	3-Jun	280	15-May
Violet-green Swallow	29	979	21-Apr	3-Jun	120	15-May
Bank Swallow	8	314	26-May	3-Jun	125	31-May
Cliff Swallow	10	44	12-May	3-Jun	10	30-May
Barn Swallow	7	21	16-May	31-May	6	30-May
Black-capped Chickadee	21	35	20-Apr	27-May	4	22-Apr
Boreal Chickadee	9	10	23-Apr	3-Jun	2	23-Apr
Golden-crowned Kinglet	1	1	24-Apr	-	1	24-Apr
Ruby-crowned Kinglet	29	134	20-Apr	3-Jun	12	14-May
Gray-cheeked Thrush	2	2	27-May	29-May	1	both days
Swainson's Thrush	4	10	26-May	3-Jun	3	26/27 May
Hermit Thrush	3	3	6-May	17-May	1	all days
American Robin	30	130	20-Apr	3-Jun	10	28-Apr
Varied Thrush	22	58	22-Apr	3-Jun	6	15-May

Species	ALL OBS		First Date	Last Date	HIGH COUNT	
	# of Days	Bird Days			#	Date
American Pipit	16	130	23-Apr	18-May	22	29-Apr
Bohemian Waxwing	4	10	5-May	30-May	6	30-May
Lapland Longspur	7	21	28-Apr	16-May	6	6 / 16 May
Tennessee Warbler	2	2	31-May	3-Jun	1	both days
Orange-crowned Warbler	16	32	2-May	3-Jun	6	29-May
Yellow Warbler	8	44	26-May	3-Jun	9	3-Jun
Myrtle Warbler	29	357	20-Apr	3-Jun	28	2-May
Townsend's Warbler	1	1	26-May	-	1	-
Blackpoll Warbler	9	27	20-May	3-Jun	5	27-May
American Redstart	2	3	31-May	1-Jun	2	31-May
Northern Waterthrush	12	21	15-May	3-Jun	3	30-May
Common Yellowthroat	8	62	26-May	3-Jun	14	3-Jun
Wilson's Warbler	14	238	14-May	3-Jun	47	29-May
American Tree Sparrow	18	397	20-Apr	18-May	75	24-Apr
Chipping Sparrow	7	13	26-May	3-Jun	4	3-Jun
Savannah Sparrow	17	61	4-May	3-Jun	10	14-May
Fox Sparrow	14	24	20-Apr	3-Jun	4	24-Apr
Lincoln's Sparrow	26	103	20-Apr	3-Jun	9	27-May
White-crowned Sparrow	19	981	20-Apr	18-May	125	7-May
Golden-crowned Sparrow	14	63	28-Apr	18-May	8	5 / 17 May
Slate-colored Junco	32	1098	20-Apr	3-Jun	150	24-Apr
Oregon Junco	1	1	4-May	-	1	4-May
Red-winged Blackbird	16	36	12-May	3-Jun	4	3-Jun
Rusty Blackbird	25	57	24-Apr	3-Jun	8	2-May
Purple Finch	10	12	2-May	3-Jun	2	13 / 26 May
Pine Siskin	2	8	2-Jun	3-Jun	4	both days
Common Redpoll	8	27	23-Apr	20-May	8	6-May

Table 4. Summary of birds banded and observed at McIntyre Marsh from 2009 to 2012.

Species	Banded / Observed				TOTAL BANDED (2009 - 2012)
	2009	2010	2011	2012	
Horned Grebe		✓			
Common Loon				✓	
Greater White-fronted Goose	✓			✓	
Canada Goose	✓	✓	✓	✓	
Trumpeter Swan	✓		✓	✓	
Tundra Swan	✓		✓	✓	
American Wigeon	✓	✓	✓	✓	
Mallard	✓	1	✓	✓	1
Gadwall	✓				
Northern Shoveler		✓	✓	✓	
Northern Pintail	✓	✓		✓	
American Green-winged Teal	4	✓	✓	✓	4
Blue-winged Teal			✓	✓	
Lesser Scaup				✓	
Bufflehead	✓		✓	✓	
Common Goldeneye	✓	✓			
Barrow's Goldeneye	✓	✓	✓	✓	
Osprey	✓			✓	
Bald Eagle	✓	✓	✓	✓	
Northern Harrier	✓	✓	✓	1	1
Sharp-shinned Hawk	1	3	✓	1	5
Northern Goshawk	✓		✓		
Red-tailed Hawk	✓	✓	✓	✓	
Rough-legged Hawk	✓		✓		
Golden Eagle			✓		
American Kestrel		✓		✓	
Merlin	✓		✓	✓	
Peregrine Falcon				✓	
Ruffed Grouse		✓		✓	
Semi-palmated Plover	✓		✓		
Lesser Yellowlegs	1	✓	✓	✓	1
Solitary Sandpiper	7	7	6	7	27
Spotted Sandpiper		1	✓		1
Semi-palmated Sandpiper	✓				
Long-billed Dowitcher				✓	
Pectoral Sandpiper	✓		✓	✓	
Upland Sandpiper				✓	
Wilson's Snipe	5	8	2	5	20

Species	Banded / Observed				TOTAL BANDED (2009 - 2012)
	2009	2010	2011	2012	
Bonaparte's Gull	✓		✓	✓	
Mew Gull	✓	✓	✓	✓	
Herring Gull	✓	✓	✓	✓	
Great Horned Owl	✓			✓	
Boreal Owl			✓		
Belted Kingfisher	1	1	1	✓	3
Yellow-bellied Sapsucker				✓	
Hairy Woodpecker	✓	✓			
American Three-toed Woodpecker		✓	✓		
Northern Flicker	✓	✓	✓	✓	
Olive-sided Flycatcher	✓	1	2	✓	3
Western Wood-Pewee	✓			✓	
Alder Flycatcher		✓	3	8	11
Yellow-bellied Flycatcher				✓	
Hammond's Flycatcher	✓	6	✓	3	9
Say's Phoebe	✓		✓	1	1
Northern Shrike	1				1
Gray Jay	✓	✓	✓	✓	
Black-billed Magpie	✓	✓	✓	✓	
Common Raven	✓	✓	✓	✓	
Tree Swallow	89	1	18	235	343
Violet-green Swallow	103	22	36	116	277
Bank Swallow	✓	✓	✓	30	30
Cliff Swallow	✓	✓	✓		
Barn Swallow	✓	✓		1	
Black-capped Chickadee	8	4	2	7	21
Mountain Chickadee	2				2
Boreal Chickadee	9	1	9	1	20
Red-breasted Nuthatch			✓		
Golden-crowned Kinglet		✓	✓	✓	
Ruby-crowned Kinglet	5	25	15	64	109
Townsend's Solitaire					
Gray-cheeked Thrush		✓	1	1	2
Swainson's Thrush	1	3		3	7
Hermit Thrush				1	1
American Robin	6	15	✓	11	32
Varied Thrush	✓	2	✓	15	17
American Pipit	4	6	✓	10	20
Bohemian Waxwing	✓	✓	✓	✓	

Species	Banded / Observed				TOTAL BANDED (2009 - 2012)
	2009	2010	2011	2012	
Tennessee Warbler		2	✓	1	3
Orange-crowned Warbler	9	16	20	25	70
Yellow Warbler	3	8	27	23	61
Yellow-rumped 'Myrtle' Warbler	70	212	54	179	515
Yellow-rumper 'Integrade' Warbler	2			1	3
Townsend's Warbler			✓	✓	
Blackpoll Warbler		5	14	10	29
Northern Waterthrush	8	16	7	6	37
American Redstart				✓	
Common Yellowthroat	26	53	21	27	127
Wilson's Warbler	57	144	57	174	432
Song Sparrow			1		1
Lapland Longspur	39	1	✓	✓	40
American Tree Sparrow	63	75	3	151	292
Chipping Sparrow		5	✓	8	13
Savannah Sparrow	58	83	10	43	194
Fox Sparrow	6	109	✓	7	122
Lincoln's Sparrow	25	75	12	55	167
White-crowned Sparrow	113	342	4	620	1,079
Golden-crowned Sparrow	18	34	1	33	86
Dark-eyed 'Slate-colored' Junco	77	247	9	490	823
Dark-eyed 'Oregon' Junco				1	1
Rusty Blackbird	25	11	2	1	39
Red-winged Blackbird	5	3	2	1	11
Brown-headed Cowbird			✓		
Purple Finch	1			3	4
Red Crossbill	✓		✓		
White-winged Crossbill	✓		4		4
Common Redpoll	31	33	97	1	62
Hoary Redpoll		1			1
Pine Siskin	3	✓	✓	✓	3
TOTAL BIRDS BANDED	886	1,582	440	2,381	5,295
TOTAL SPECIES BANDED	36	38	29	42	54

Table 5. Comparison of top 10 species banded during 2012 as compared to 2011, 2010 and 2009.

Species	# of Birds Banded (# - #/100 net hours – annual rank)			
	2012	2011	2010	2009
White-crowned Sparrow	620 – 51.43 – 1	4 – 0.42 – 17	342 – 19.83 – 1	113 – 8.07 – 1
Dark-eyed ‘Slate-colored’ Junco	490 – 40.65 – 2	9 – 0.94 – T 13	247 – 14.32 – 2	77 – 5.50 – 4
Tree Swallow	235 – 19.49 – 3	18 – 1.84 – 8	1 – 0.06 – 38	89 – 6.35 – 3
Yellow-rumped ‘Myrtle’ Warbler	179 – 14.85 – 4	54 – 5.52 – 3	212 – 12.29 – 3	71 – 5.07 – 5
Wilson’s Warbler	174 – 14.43 – 5	57 – 5.83 – 2	144 – 8.35 – 4	57 – 4.07 – 8
American Tree Sparrow	151 – 12.53 – 6	3 – 0.31 – T 19	75 – 4.35 – T 7	63 – 4.50 – 6
Violet-green Swallow	116 – 9.62 – 7	36 – 3.68 – 4	22 – 1.28 – 12	103 – 7.35 – 2
Ruby-crowned Kinglet	64 – 5.31 – 8	15 – 1.53 – 9	25 – 0.93 – T 13	5 – 0.36 – T 18
Lincoln’s Sparrow	55 – 4.56 – 9	12 – 1.26 – 11	75 – 4.35 – T 7	25 – 1.79 – 12
Savannah Sparrow	43 – 3.57 – 10	10 – 1.05 – 12	83 – 4.81 – 8	58 – 4.14 – 7

Table 6. Summary of spring arrival dates for select species at McIntyre Marsh from 2009 to 2012.

Species	Spring Arrival Dates			
	2012	2011	2010	2009
Station Opening Date	20 April	22 April	18 April	18 April
Solitary Sandpiper	4 May	14 May	10 May	9 May
Lesser Yellowlegs	5 May	5 May	28 April	3 May
Hammond’s Flycatcher	6 May	5 May	24 April	2 May
Swainson’s Thrush	26 May	24 May	21 May	27 May
Orange-crowned Warbler	2 May	14 May	1 May	12 May
Yellow Warbler	26 May	22 May	18 May	24 May
Yellow-rumped Warbler	20 Apr	30 Apr	24 April	2 May
Blackpoll Warbler	20 May	22 May	20 May	27 May
Northern Waterthrush	15 May	15 May	18 May	13 May
Common Yellowthroat	26 May	22 May	18 May	23 May
Wilson’s Warbler	14 May	14 May	8 May	3 May
Savannah Sparrow	4 May	14 May	28 April	2 May
Fox Sparrow	20 Apr	15 May	23 April	3 May
Lincoln’s Sparrow	20 Apr	1 May	24 April	2 May
White-crowned Sparrow	20 Apr	2 May	23 April	2 May
Golden-crowned Sparrow	28 Apr	14 May	24 April	2 May
Lapland Longspur	28 Apr	14 May	1 May	18 April
Red-winged Blackbird	12 May	1 May	2 May	2 May
Rusty Blackbird	24 Apr	1 May	23 April	2 May

Table 7. Summary of band returns during the 2012 season.

Species	Band Number	Banded		Recaptured
		Date	Age – Sex	Date
Black-capped Chickadee	2580-39836	18 May 2009	SY – U	18 May 2012
American Robin	1232-58716	1 May 2010	AHY – M	26 May 2012
Common Yellowthroat	2610-64460	22 May 2010	AHY – F	26 May 2012
Common Yellowthroat	2610-91989	23 May 2011	ASY – F	26 May 2012
Yellow-rumped Warbler	2610-64353	15 May 2010	AHY – M	17 May 2012
Lincoln's Sparrow	2311-84940	29 May 2010	AHY – M	26 May 2012
Lincoln's Sparrow	2311-81826	23 May 2009	AHY – M	26 May 2012
Lincoln's Sparrow	2401-65035	24 May 2011	AHY – U	27 May 2012
Dark-eyed Junco	2401-64992	14 May 2011	SY – M	12 May 2012

Table 8. Summary of volunteer and visitor hours at McIntyre Marsh in 2012.

Where From	Paid		Volunteers		Visitors	
	# of Individuals	Hours	# of Individuals	Hours	# of Individuals	Hours
Whitehorse	4	51.75	21	304.50	304	699.1
Yukon			2	23.75		
Canada			1	3.75	5	13.25
USA						
Other International					2	3.5
TOTAL	4	51.75	24	332	311	715.9