

# Migration Monitoring at TTPBRS

Fall 2012



Townsend's Solitaire (C. England)

Prepared by Nigel Shaw  
For  
Toronto and Region Conservation  
*Restoration Services*

December, 2012

## Table of Contents

Migration Monitoring at TTPBRS .....	1
2012.....	1
Introduction.....	1
Study Site.....	1
Toronto and Region Conservation (TRCA).....	1
Migration Monitoring Program .....	1
Rationale .....	1
Methods .....	2
Fall 2012 Migration Summary .....	2
Banding .....	2
Recaptures .....	3
Highlights.....	3
Education and Outreach.....	5
Volunteerism.....	5
Winged Migration .....	<b>Error! Bookmark not defined.</b>
Media .....	6
Acknowledgements .....	6
Appendices.....	<b>Error! Bookmark not defined.</b>

## Table of Figures

Table 4. Fall Coverage and Results.....	<b>Error! Bookmark not defined.</b>
Table 5. Fall Banding Totals .....	<b>Error! Bookmark not defined.</b>
Table 6. Fall Volunteer Hours.....	<b>Error! Bookmark not defined.</b>

## **Introduction**

The Tommy Thompson Park Bird Research Station (TTPBRS) was established in April of 2003 and is run by the Toronto and Region Conservation Authority (TRCA). The primary objectives of TTPBRS are to aid conservation efforts at the local, national and international level through monitoring, research and education. The core focus of the TTPBRS is the Migration Monitoring Program. This report details results of the 2012 fall seasons at TTPBRS.

### ***Study Site***

Tommy Thompson Park (TTP) is located on the Leslie Street Spit, a man-made peninsula on Toronto's waterfront which extends 5 km into Lake Ontario. The spit was developed in the 1950's by the Toronto Port Authority for the purpose of expanding port facilities in anticipation of increased shipping activities in the Great Lakes. Since then a combination of lakefilling and dredging activities created the current configuration of the park. TTP now has a land base of approximately 160 hectares and a water surface area of 100 hectares, composed of the western embayments and the inner disposal cells.

Through natural succession and habitat restoration most of TTP has been colonized by a variety of plant and animal communities. The geographic situation of the park and its natural features make it very suitable for large numbers of breeding and migrating birds. Overall, the park represents the largest area of existing natural habitat on the Toronto waterfront. Tommy Thompson Park is classified as an Environmentally Significant Area and was designated as an Important Bird Area (IBA) by Birdlife International in 2000.

The site selected for Migration Monitoring is located on peninsula D, which is one of several peninsulas that branch off the main spine of the spit. The peninsula is bordered by the Toronto harbour on the north side and an inner bay on the south side. The habitat is composed of early succession cottonwood, willow, dogwood, and birch forest. Beach and meadow features are also present in the study area. Please refer to Appendix A for a detailed map of the study area.

### ***Toronto and Region Conservation (TRCA)***

Toronto and Region Conservation (TRCA) was formed in 1957 for the management and conservation of natural resources in the Greater Toronto Area (GTA). Since its formation TRCA has prepared and delivered programs for the management of the renewable natural resources within its watersheds.

## **Migration Monitoring Program**

### ***Rationale***

Migration Monitoring is an effective method for monitoring populations of migratory birds through the standardized capture and counting of migrants. This protocol is particularly useful for monitoring species which breed and winter in areas too remote and inaccessible to survey.

There are 25 Migration Monitoring stations throughout Canada which are coordinated by the Canadian Migration Monitoring Network (CMMN). The data collected by member stations can be analyzed to detect population trends at the local, regional and national scales.

## Methods

Migration Monitoring operates on a daily basis from April 1 - June 9 and August 5-November 11. The protocol employs fixed effort census as well as a fully standardized capture regimen. The protocol for data collection at TTPBRS is detailed in the TTPBRS Migration Monitoring Protocol.

## Fall 2012 Migration Summary

Fall migration monitoring began on August 5 and continued until November 11 with a total of 98 days of coverage. 163 species were detected within the study area.

**Table 1. Fall Coverage and Results**

- \*Includes standard and non-standard banding
- 

Unit 2012	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Days with coverage	77	98	93	96	97	96	87	91	95	84
Net Hours	8605*	3404	4531	2641	NA	6835	6085	6816	7388	6726
Total Species Detected	183	163	170	158	127	185	176	180	173	161
Birds Banded	4629*	1473	2592	1190	8	3391	4473	4247	3870	3327
Birds Recaptured	616*	226	308	120	0	423	429	560	614	623
Captured Unbanded	269*	70	86	38	0	125	515	382	429	152
Total Captures	5514	1772	2986	1348	8	3939	5419	5189	4913	4102
Birds banded/net hour	0.54	0.43	0.57	0.45	NA	0.50	0.74	0.62	0.52	0.49
Birds captured/net hour	0.64	0.52	0.66	0.51	NA	0.58	0.89	0.76	0.66	0.61

## Banding

per net hour. The most productive day overall was October 1 with 165 birds banded in only 15 net hours (10.5 birds per net hour). October 2 was the next busiest day, with birds banded in 25.5 net hours (6 birds per net hour). The lack of net hours on those days was due to the fact that most of the birds captured were in the first and second net runs, forcing volunteers to shut nets. The least productive day was November 1, with only one bird banded in 40 net hours.

**Table 2. Fall Banding Totals**

SPECIES	TOTAL	SPECIES	TOTAL	SPECIES	TOTAL
AMGO	12	EAPH	17	PHVI	27
AMRE	102	EATO	1	RCKI	385
AMRO	18	EAKI	40	RBNU	29
ATSP	29	EAWP	14	REDH	1
BAOR	51	EUST	73	REVI	58
BAWW	9	FISP	1	RBGR	5
BBCU	1	FOSP	8	RTHA	4
BBWA	17	GCKI	769	SCJU	68
BCCH	262	GCTH	52	SCTA	1
BDOW	4	GCFL	3	SSHA	6
BEKI	4	GRCA	50	SOSP	60

BGGN	1	HAWO	1	SWSP	18
BHVI	9	HETH	166	SWTH	166
BLBW	8	LEFL	30	TEWA	27
BLJA	10	LESA	1	TOSO	1
BLPW	38	LEOW	1	TRFL	87
BOOW	1	LISP	11	VEER	20
BRCR	129	MALL	30	WAVI	71
BRTH	1	MAWA	107	WCSP	19
BTBW	46	MOWA	2	WIWA	50
BTNW	26	MYWA	573	WIWR	27
BWHA	1	NAWA	91	WOTH	1
CAGO	4	NOCA	21	WPWA	35
CAWA	21	NOGO	1	WTSP	129
CEDW	29	NOMO	1	YBFL	21
CMWA	16	NOPA	10	YBSA	8
CHSP	5	NSWO	36	YEWA	63
COHA	4	NOWA	28	YSFL	4
COGR	3	NSHR	3		
CORE	34	OCWA	14		
COYE	42	OVEN	39		
CSWA	21	PISI	27		
DOWO	9	PIWA	1		
		PUFI	2		
			<b>SPECIES</b>	<b>97</b>	
			<b>TOTAL</b>	<b>5514</b>	

### ***Recaptures***

There were 632 recaptures in fall 2012. Of 632 recaptures, 22 were “return” individuals banded in a previous season at TTPBRS and 156 were “repeats”, birds banded during a previous season at TTPBRS. 47 records were multiple captures of the same individuals.

The most commonly recaptured birds were Black-capped Chickadees, Golden-crowned Kinglets, Ruby-crowned Kinglets, Song Sparrows and Yellow Warblers. Refer to Appendix C for a detailed table of recaptures.

### **RECAPTURE HIGHLIGHTS**

<b>SPECIES</b>	<b>band #</b>	<b>date banded</b>	<b>date re-trapped</b>	<b>bander</b>	<b>age</b>
Yellow warbler	2340-88329	May 9 2005	August 14 2012	GS/BKD	8yrs

## Highlights



Boreal owl



Townsend's solitaire

## HIGHLIGHTS

Black-billed cuckoo.....one banded on August 16th  
Northern Mockingbird.....one banded on August 17th, a first for TTPBRS  
Northern goshawk.....one banded on November 2nd, a first for TTPBRS  
Boreal owl.....one banded on November 8th, a first for TTPBRS  
Townsend's solitaire.....one banded on November 9th, a first for TTPBRS  
Red phalarope.....one sighted in October  
Barred owl.....4 banded in October and November, first for TTPBRS  
Broad-winged hawk.....one banded on October 9th  
Redhead.....one banded on November 3rd, a first for TTPBRS  
Brant.....3 sighted October  
White-winged crossbill.....sighted November  
Iceland gull.....sighted November

## Education and Outreach



TTPBRS continues to engage the community through educational programming. Banding demonstrations and interpretive talks were given to over 1000 people at TTPBRS in 2012. This figure includes park visitors, students and special groups.

### ***Volunteerism***

Providing educational opportunities for those interested in bird research is a critical role for the research station, as venues for hands-on learning are hard to find. Many of our trainees have gone on to bright futures in the environmental field through experience at TTPBRS.

With only one paid staff person, TTPBRS truly is volunteer-driven. This fall 21 volunteers contributed a total of 3,200 hours to the migration monitoring program! Although some volunteers move on or move away, most of our crew is made up of long-term volunteers who commit to one or more days per week, year after year. 18 of the 21 people who volunteered this year were people returning from previous seasons!

Thank you to all of our committed volunteers who make this program possible!

<b>Volunteer</b>	<b>Total Hours</b>
Andreas Jonsson	0
Amanda Guercio	346.0
Clara Siu	32.0
Bronwyn Dalziel	327.5
Charlotte England	150.5
Paul Xamin	317.0
Denise Potter	97.5
Don Johnston	35
Mark Field	15.5
Maya Ricker-Wilson	72,5
Glenn Reed	301.5
Ian Sturdee	67.5
Courtney Shaw	93.25
Lisa Myslicki	47.5
Josh Shook	58.0
Pricilla Lai	8
Theresa McKenzie	150.25
Tom Flinn	14



Callie Moore	
Clara Siu	
Stephanie Topp	
<b>TOTAL HOURS</b>	

## ***Weekly Bird Walks***

This fall TTPBRS conducted bird walks each Saturday, led by volunteers Bob Kortright and Tom Flinn. Participants met at the entrance at 8:00 and were guided through the base lands before heading up the road to the research station, where they got to see bird banding demonstrations. The bird walks have been a great way to educate people about the importance of urban greenspace and to further the mission of TTPBRS. Over the course of the fall, 129 participants enjoyed bird walks.

## ***Media***

TTPBRS was well featured in local, national and international media in 2012, including CP24 and CTV News. This allowed TTPBRS to expand its reach to the broader public.

## **Acknowledgements**

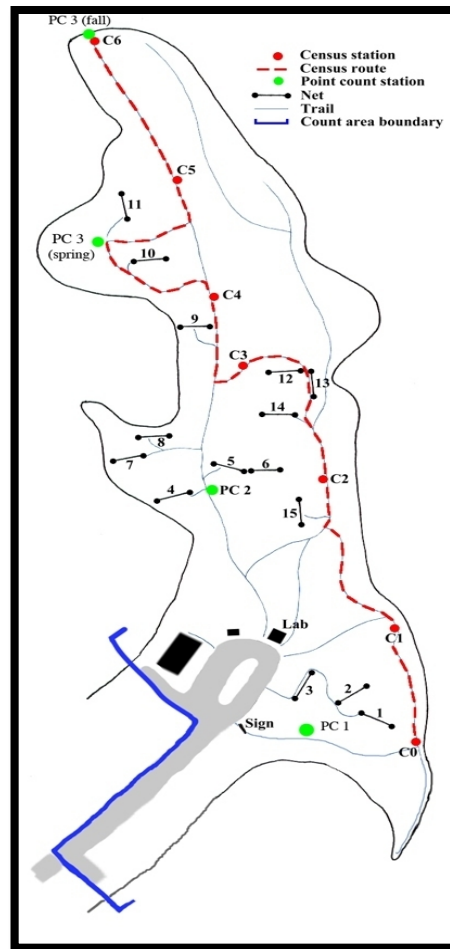
TRCA would like to thank all the volunteers who made 2012 Fall Migration Monitoring possible:

Amanda Guercio, Charlotte England, Bronwyn Dalziel, Don Johnston, Glenn Reed, Ian Sturdee, Josh Shook, Lisa Myslicki, Mark Field, Denise Potter, Maya Ricker-Wilson, Paul Xamin, Priscilla Lai, Theresa McKenzie, Tom Flinn, Courtney Shaw, Andreas Jonnson, Callie Moore, Clara Siu and Stephanie Topp.



Northern saw-whet owl





Appendix A. Count Area Map

Appendix B Fall 2012 Recaptures

Species	Repeat Individuals	Return Individuals	Multiples	Foreign	Total
AMGO	1				1
AMRO	3				3
ATSP	1				1
BAOR	14				14
BAWW	1				1
BCCH	140				
BLPW	2				
BRCR	10				
BTBW	8				
BTNW	2				
CAWA	6				
CEDW	4				
CMWA	2				
COYE	16				
CSWA	2				
DOWO	8				
EAKI	1				

EAPH	1		1
EAWP	1		1
GCKI	91		
GCTH	4		
GRCA	17		
HETH	20		
LEFL	1		
MAWA	17		
MYWA	27		
NAWA	1		
NOCA	4		
NSWO	1	1	2
OCWA	5		
OVEN	12		
PHVI	7		
PUFI	1		
RCKI	48		
REVI	13		
SCJU	1		
SOSP	8		
SWSP	2		
SWTH	17		
TRFL	12		
WAVI	9		
WCSP	1		
WIWR	3		
WIWA	4		
WTSP	17		
YEWA	16		
YSFL	1		
VEER	6		
<b>TOTAL</b>	<b>616</b>		

#### Appendix D. Top Ten Species Banded 2003-2012

Rank	2003	2004	2005	2006	2007	2008	2009	2010	2012
1	GCKI	GCKI	GCKI	GCKI	WTSP	WTSP	GCKI	GCKI	GCKI
2	WTSP	WTSP	RCKI	RCKI	RCKI	MYWA	WTSP	MYWA	MYWA
3	RCKI	RCKI	BCCH	WTSP	GCKI	MAWA	RCKI	BCCH	RCKI
4	HETH	MYWA	WTSP	MYWA	MYWA	RWBL	MYWA	WTSP	BCCH
5	SWTH	HETH	MYWA	MAWA	HETH	SWTH	SWTH	HETH	SWTH
6	MYWA	MAWA	SWTH	NAWA	SWTH	SOSP	HETH	SWTH	HETH
7	BRCR	SWTH	HETH	SWTH	MAWA	RCKI	YWAR	RCKI	WTSP
8	SCJU	YWAR	MAWA	HETH	SCJU	YWAR	SCJU	MAWA	BRCR
9	NAWA	NAWA	SCJU	SCJU	BRCR	COYE	RWBL	SCJU	MAWA
10	MAWA	TRFL	BRCR	BRCR	NAWA	HETH	SOSP	NAWA	AMRE



Fall plumaged Bay-breasted warbler



Orange-crowned warbler



Black-throated green warbler



Black-throated blue warbler



Northern parula



Yellow warbler

.....A few of my favorite fall warblers.....