

# FlightNotes

2007

Issue 3

Winter



## Common Redpoll *carduelis flammea* Record High Numbers in Fall 2007

### The Big Year

The winterization of the TTPBRS lab in November, 2007 marked the closure of our fifth consecutive year of field operations. The growth and development of TTPBRS in 2007 was altogether positive and we are now working hard on 2008. Before we look ahead, let's take a moment to look back on what was the most formative year in the short-history of the bird research station!

### In the Community

First and foremost, 2007 was our best year to date in terms of support from the community. Volunteers contributed over 4,000 hours to our programs, which was the most ever in a single year. The TTPBRS Membership Program was launched in late summer and over 60 members have pledged their support already. The annual Baillie Birdathon fundraiser for TTPBRS generated over \$16,000 for bird conservation- the best result of all worldwide participating organizations! The fundraiser also enabled us, with assistance from volunteer Anne McConnell to establish important connections to the business community. All together, this support encompasses over 300 individuals who dedicated time and/or money to help birds in Toronto!

Last year was also our best year for education and outreach. We were very pleased to operate the Winged Migration program for schools during both the spring and fall field terms. As always, park visitors were welcomed each weekend during the migration seasons. Many workshops and information sessions were also provided by our staff and volunteers at locations across the city including; Mountain Equipment Coop, P&G, and Milne Hollow Park. Articles featuring TTPBRS appeared in Toronto Star, National Post, Now Magazine, Birding, Ontario Birds, Canadian Geographic, CBC news Toronto and CFRB 1010.

The spring, summer and fall field seasons were efficiently completed and together form the most complete assessment of birdlife in the GTA that we have ever performed. This effort includes over 6500 birds banded, over 300 nests logged and monitored, 609 point counts and

transects surveyed and hundreds of thousands of birds recorded. These totals are drawn from a growing list of monitoring programs, which include Migration Monitoring, MAPS, Marsh Monitoring Program, and Duffin's Wetland Monitoring among others. Most importantly, this data is being integrated into local and continental monitoring and conservation initiatives.

In early 2006 it was decided that the first three "pilot" years of TTPBRS were effective, which led us to envision the establishment of a permanent centre for bird studies and education in Toronto. The unprecedented level of support received in 2007 provided a substantial push forward in the realization of our vision.

Because of the generosity of our supporters last year, we are very excited to be able to deliver all of our programs in 2008. See you in the field!

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# Nocturnal Owl Monitoring

By Seabrooke Leckie



One of the primary objectives of TTPBRS is the monitoring of bird populations in the Toronto area, and the station participates in a number of monitoring programs to achieve this.

While migration monitoring

is the primary program run by the station, Nocturnal Owl Monitoring is the longest-running of the secondary programs, having started in the fall of 2003. The purpose of this program is to monitor, on an annual basis, the populations of Northern Saw-whet Owls moving through Toronto in the fall. While all owl species will move during times of food shortages, saw-whets are the only truly migratory owl species, and as such make an ideal candidate for monitoring programs. However, the distance that the birds move is partially tied to prey abundance, with larger movements into the south in years of low prey availability.

Saw-whets have been shown to follow an approximately four-year population cycle, with populations peaking about every fourth year, followed by a crash in numbers the next year. This cycle follows that of their primary prey species, the Red-backed Vole. Previous population peaks occurred in 1999 and 2003. Keeping with the four-year pattern, 2007 was another peak year for saw-whet numbers, with voles plentiful during the breeding season, allowing for high nest success. However, seed crops through the owls' breeding range suffered high failure rates this year, and the resulting seed shortage caused a major population crash among voles and other rodents. This unique combination of high saw-whet numbers and low prey availability caused huge numbers of owls, primarily hatch-year birds, to migrate south in search of food.

This year marked the fifth year of saw-whet owl monitoring at TTPBRS. The longevity of the program has allowed us to observe a full cycle in saw-whet populations, starting with a peak year in 2003. We were anticipating a large movement this year, following three years of lower numbers, but were blown away by the number of birds actually encountered! The first capture of the season was on September 26, the earliest for TTPBRS by 9 days (the program usually kicks off on October 5, when saw-whets generally start showing up in the Toronto area in the fall). Many long nights were put in by volunteers, with a total of 314 saw-whets banded between the start and the final day, November 11. This easily surpasses our previous high of 180 banded, from 2003.



Northern Saw-whet Owls are one of the most frequently recovered species of birds, that is, they are often encountered by other banders (relative to most species). This year we captured 7 owls that had been previously banded at other locations. These owls were originally banded at locations as far away as Temiskaming, in northern Ontario, Prince Edward Point, near Kingston, and Whitefish Point, in northern Michigan. Such recoveries can also often provide interesting information on movement patterns, such as one of our birds, banded this fall, that was captured by Prince Edward Point Bird Observatory just 7 days later – a movement of 200 km northeast!

The big movement this year made it an ideal year to launch our first-ever "Owls Up Close" members' event. The event invited members to come down to the station one evening during the peak migration period to observe the saw-whet owl monitoring program, and get to see one of these spectacular, but tiny, owls up close in the hand. We had so many members sign up for the event, we had to split the everyone into two separate nights. The owls didn't have quite the sense of occasion that we did, but both groups were treated to at least one saw-whet, and everyone had a great time.

We expect the next big year for saw-whets to be 2011, but we'll be running the program, and the "Owls Up Close" members' event, every year. The data TTPBRS collects is invaluable for helping to understand the population dynamics of these delightful little owls, as well as the importance of the park to these birds as a migratory stopover site.



# Fall Migration Monitoring Summary

By Dan Derbyshire



Fall 2007 featured fewer birds than in any previous fall season at TTPBRS. However, this statement fails to recognize that this fall will be remembered as the season of some truly phenomenal migration spectacles thanks to impressive movements of Northern Saw-whet Owls, winter finches, Purple Martins and Monarchs.

## Some Results

Coverage in fall 2007 was above average as 96 of 100 target days received at least some coverage. In terms of net hours, 6,835 hours were logged which is 76% of the target, up from 69% in 2006. The increase in coverage did not mean an increase in season banding total as 3391 birds were banded, which is the 2nd lowest fall total since TTPBRS began in 2003. Despite this, a record high 185 species were recorded. Amongst unusual sightings were Brant, Baird's Sandpiper, Buff-breasted Sandpiper and Stilt Sandpiper, all first records for TTPBRS. Annual shifts in populations are normal and to be expected. What is most important is that the data was collected with care, skill and in accordance with the entrenched operations manual.

Unit	2007	2006	2005	2004	2003
Days with full coverage	50	40	48	60	0
Net Hours	6835	6085	6816	7388	6726
Total Species Detected	185	176	180	173	161
Birds Banded	3391	4473	4247	3870	3327
Birds Recaptured	423	429	560	614	623
Captured Unbanded	125	515	382	429	152
Total Captures	3939	5419	5189	4913	4102
Birds banded/net hour	0.50	0.74	0.62	0.52	0.49
Birds captured/net hour	0.58	0.89	0.76	0.66	0.61

Banding totals for 13 species and forms were record low. This list of species includes Golden-crowned Kinglet, which were eclipsed by banding totals of Ruby-crowned Kinglets for the first time. This fall wasn't all lows as five species were banded in record high numbers including Baltimore Oriole, Common Redpoll and Northern Saw-whet Owl. Weather during summer 2007 was extreme for many regions across Ontario where high temperatures and drought conditions were reported. This weather likely adversely affected breeding productivity for many migratory species. This is supported by the irruptions of winter finches and owls into the south, which was precipitated by a collapse in seed densities in northern forests.

Given the all-time low migrant density this fall we would expect that productivity indices (hatch-year percentage of total species sample) to also be record low. This was certainly the case as 80% of birds successfully aged were classed as hatch-year birds (i.e. birds hatched in 2007). The previous low percentage was 83.7% in 2003,

which was formerly the fall season with the lowest migrant abundance. These figures differ significantly from the 89% figure derived in 2006, our highest fall season ever in terms of abundance.

The research station at Tommy Thompson Park continues to engage the community through educational programming. Banding demonstrations and interpretive talks were given to 1744 people at TTPBRS in 2007, which includes 904 from the spring and 840 from the fall.

Over 2000 hours were contributed by 23 volunteers this fall and we thank them for their spirited dedication to TTPBRS!

Name	Hours	Name	Hours
Seabrooke Leckie	378	Tom Flinn	44.8
Andrew Jano	284	Pierre Robillard	44.8
Ian Sturdee	217	Josh Shook	41
Don Johnston	205	Julia Marko Dunn	39.8
Teresa Carlin	180	Steve Gillis	33
Jan McDonald	123	Attila Fust	27.8
Larry Menard	120	Dave Langford	17.8
Kerry McGuire	118	Mitch Meredith	11
Joanna Jack	81	Chris Dunn	10.5
Bert Vanderzon	65.3	Rob Maciver	6
Zoe Lebrun-Southcott	50	Andrew Macdonald	3.5
Norma Vanderzon	47	Total	2148

The complete Migration Monitoring report for 2007 is available in pdf format (please contact TTPBRS Coordinator for oopy)



# 2007 Birdathon Wrap-up

The Baillie Birdathon is a terrific fundraiser for conservation organizations, particularly those who are members of the Canadian Migration Monitoring Network. Member stations receive up to 90% of money raised. The fundraiser offers many great benefits to both participants and sponsors, all with the goal of increasing environmental awareness and sustaining many important conservation initiatives.

## 2007 TTPBRS Prize Winners

<b>Grand Prize</b>	Bushnell Elite 8x42	Teresa Carlin
<b>Kingbird Cup</b>	Pentax Optio A10	Julia Marko
<b>Draw</b>	MEC Tarn 2 Tent	Larry Menard
<b>Draw</b>	MEC Daypack	Seabrooke Leckie
<b>Draw</b>	MEC Daypack	Jan McDonald

In 2006, the TTPBRS Baillie Birdathon fundraiser was launched and was a great success as over \$12,000 dollars were raised for our programs. In 2007 we looked to take the fundraiser to the next level with increased participation and the incorporation of celebrity birdathoner Mark Cullen.

We were grateful to have 28 birdathoners raise over \$16,000 for our programs this year! This was an accomplishment as TTPBRS was the top earner amongst all participating organizations in the Baillie Birdathon for the year! This result after just two years of experience indicates that the fundraiser is a viable means of supporting our operating costs on an annual basis. To sum it up, the birdathon is a major player in the successful delivery of TTPBRS programs.



The least we could do for our birdathoners was to formally thank them with a party on December 8, 2007. Once again, Norma and Bert Vanderzon were our obliging and delightful hosts. Over

twenty attendees were treated with a fantastic presentation by Dr. Bridget Stutchbury. Bridget recently authored the critical acclaimed *Silence of the Songbirds*, which was nominated for the 2007 Governor General's Award for non-fiction. Prizes for TTPBRS birdathoners were awarded and Teresa Carlin was the lucky winner of the Bushnell Elite binoculars, the top prize of the TTPBRS birdathon. All in all, it was a great event and something to look forward to every year.

Toronto and Region Conservation extends a hearty thanks to all the participants and sponsors in 2007, you've all made an enormous difference in the growth and success of TTPBRS!

## 2007 Birdathon Participants

Connie Agnew	*Don Johnston
Ian Argue	Wayne R. King
Natalie Atkinson	*Seabrooke Leckie
Dan Barcza	David Love
Teresa Carlin	Andrew Macdonald
Linda Craib	*Julia Marko Dunn
Mark Cullen	*Anne E. McConnell
Andrew R. Davis	Janice E. McDonald
Rolph Davis	Lori McLean
*Dan Derbyshire	Larry Menard
Tracey Etwell	Christa L. Rigney
Steve Gillis	Josh Shook
Ross Harris	*Ian C. Sturdee
Anne Hume	Judson M. Venier
*denotes fundraising committee members	

*In 2007, the TTPBRS birdathon was generously supported by Bushnell Outdoor Products, Mountain Equipment Coop, P&G, and the Portlands Energy Project.*



Special Thanks to volunteer Anne McConnell whose contributions to the TTPBRS birdathon have been invaluable!

# Member's Corner

The TTPBRS Membership program got off to a great start in 2007 with over 60 individuals pledging their support to birds in Toronto. Annual membership donations contribute greatly to the long-term stability of the bird research station and we hope that our members continue to appreciate and lend their much needed support.

Four events were delivered in the fall, which were all well attended and received by members.

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## Mothing at Tommy Thompson Park-September 5



On September 5 the lights went on and the 'goop' was set for 20 friends and members to experience a nighttime moth identification workshop. Dave Beadle led the enthusiastic group who were treated to great views of nearly

60 varieties of moths!

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## Fall Bird Hike- September 29

The birding for the Fall Bird Hike didn't disappoint as a good variety and high numbers of birds were found. The highlight for most was super close views of Rusty Blackbirds feeding just off the main road.

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## Owls Up Close- October 28, November 1



The Owls Up Close event for TTPBRS members was held in two parts due to overwhelming interest, and took place on October 28 and November 1. A combined total of 27

visitors were welcomed and I am very pleased to report that all in attendance got to see an owl. Let's hope our luck is as good or better next year!

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## 2008 Winter Event

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### Winter Bird Hike

**Date:** Saturday, February 16 Alternate: Saturday, Feb.23

**Leaders:** Andrew Jano and Ian Sturdee

**Time:** 2pm

**Meeting Location:** Notice board at entrance to Tommy Thompson Park (foot of Leslie Street south of Lakeshore Blvd.)

Tommy Thompson Park is a great location for winter birding as large concentrations of waterfowl occur and a good variety of owls and other landbirds can be found. In some years, Short-eared and Snowy Owls can be found roughly 3-4km along the spit. Dress warm and bring a thermos as

cold temperatures are expected.

## Welcome to the Flock

Alison MacKellar  
Anne E. McConnell  
Anne Hume  
Anne Powell  
Beryle D. Pope  
Beverly McDonald  
Brian L. Gray  
C. MacFarlane  
Carol Gordon  
Carol Sellers  
David Love  
Dushan Jojkic  
George D. Bryant  
Ian Argue  
John Grant  
John Wilson  
Joyce Mills  
Karin Fawthrop  
Kathryn Mills  
L. Huw Morgan  
LGL Limited  
Linda C. Doran  
Linda M. Craib  
Linda Stemmler  
Lori Nichols  
Lynda Eunson  
M. S. Macartney-Filgate  
Margaret Liubavicius  
Marleen Rozemond  
Marsha Yamamoto  
Mathieu Tardif  
Melanie Bast  
Mike Kinrys  
Pam Ward  
Phyllis Quinton  
Rae Roebuck  
Seumus Eaves  
Shireen Harbin  
Simon Heath  
Susan Sinclair  
Tom and Shelley Grenon

Planning is underway for a new TTPBRS facility with construction planned for summer 2008!

# Bird Banding: Past, Present and Future

By Dan Derbyshire



The practice of uniquely identifying individual birds goes back over 2000 years when Quintus Fabius Pictor, a Roman general, placed a knotted thread on a swallow to send a message to a distant garrison around 210

B.C. Various forms of this practice have evolved over time, eventually resulting in the establishment of scientific bird banding schemes at the turn of the 20th century. The first bird ever banded in North America was of an American Robin by James Henry Fleming in his backyard in Toronto, Ontario. A Mallard banded by Jack Miner in Kingsville, Ontario was shot by a hunter in the U.S., providing the first instance of a recovered band on the continent.

In 1923, the North American Bird Banding Program was established. Since then over 60 million birds have been banded in North America. In Canada, 300, 000 birds of 300 species are banded annually.

## Why Bird Banding?

The driving force behind establishing scientific banding (or ringing) was the signing of the Migratory Birds Convention in 1916. The treaty addressed growing concern for the many species either recently extinct or rapidly disappearing. Therefore, the goal of organized bird banding was to understand more about the life histories of birds in order to protect them.

A century later than that first robin in Toronto, bird banding has been an essential tool for ornithology. As a tool, the practice has been irreplaceable to the understanding of bird movement, demographics, behaviour, ecology, productivity and population trends to name a few.

### *Wood Thrushes in Toronto*

Banding by TTPBRS yields data on abundance, stopover rate, duration and fitness of migrant Wood thrushes.

Banding Wood Thrushes at Claireville Conservation Area for the MAPS program yields critical data on nesting productivity, survivorship rates and community demography.

Visual and auditory surveys alone could only determine abundance and productivity and with less precision.

## A Bird-in-the Hand

Bird Banding also enables unique educational experiences for people of all ages, experiences that invoke wonderment and awareness. The value of environmental education in the preservation of ecological integrity is immeasurable.

## Bird Banding for Science

Modern techniques of radio and satellite telemetry and stable isotope analysis are in many cases replacing bird banding as a tool for understanding bird movements. This is fortunate as there is a less than 1% chance that a bird banded in North America will ever be recovered at another location. We can still learn a great deal from band recoveries, however, all banding efforts at TTPBRS are focused on deriving results that have direct application to the understanding and preservation of birds and their habitats. The simple act of placing a band on a bird's leg is not particularly useful if it isn't part of a project with effective research or monitoring goals. At Tommy Thompson Park, we yield some valuable information on bird movements as a byproduct of other more effective investigations.

Without bird banding, ornithologists would be operating in the dark, as the practice has been and will continue to be essential in the study and protection of birds around the globe.



# Colonial Waterbirds of Tommy Thompson Park

The designation of TTP as a globally significant Important Bird Area by BirdLife International in 2000 was due in part to the incredible numbers of waterbirds that nest in colonies at TTP.

## **Ring-billed Gull** (*Larus delawarensis*)

The Spit is home to one of the largest breeding Ring-billed Gull colonies in the world – about 6% of the estimated global breeding population. Approximately 56,000 annual nests are found in densely packed colonies on Peninsulas A and B, which have the large expanses of sparsely vegetated ground that they prefer.

## **Herring Gull** (*Larus argentatus*)

Although larger and more aggressive than Ring-billed Gulls, Herring Gulls have a much smaller population at TTP. There are usually 60 to 80 Herring Gull nests near water on Peninsulas A and B, where they defend a nest in a large, sparsely vegetated territory.

**Great Black-backed Gull** (*Larus marinus*) This species has nested sporadically in the gull colony since 1982. Although the world's largest gull has not been recorded nesting at TTP recently, they are frequently seen at the park. They are essentially a predatory, marine bird and have been slowly increasing their Great Lakes breeding range.

**Black-crowned Night-Heron** (*Nycticorax nycticorax*) In 1979 the first Night-Herons nested on the Spit – about 7 pair. Since then, however, populations peaked at over 1200 nests, but usually number around 800 nests annually. When their numbers peaked in 2000, the Night-Herons at Tommy Thompson Park comprised about 32% of the estimated Canadian breeding population, the largest known colony in Canada. The dense cottonwood areas on Peninsulas B and C provide nesting areas for the Night-Herons, where they are interspersed with Double-crested Cormorants and Great Egrets.

## **Double-crested Cormorant** (*Phalacrocorax auritus*)

Cormorants began nesting at TTP in 1990 and have since become a common sight throughout Toronto Harbour. Over 7000 pair of Double-crested Cormorants nest at TTP, the largest colony on the Great Lakes and almost 5% of the estimated Ontario population. Double-crested Cormorants are usually tree-nesters and prefer to be close to the water, which makes the Peninsulas ideal nesting locations. They have tree-nesting colonies on Peninsulas A, B and C and there is also a group of ground nests on Peninsula B.

**Great Egret** (*Ardea alba*) Several pair of Great Egrets nest at TTP, mixed in with the Black-crowned Night-Herons and Double-crested Cormorants on Peninsula C.

By Karen McDonald

The dense cottonwood stands are the perfect habitat for these high tree nesters. They can often be seen fishing in the shallow waters in Cell One and Triangle Pond, as well as along the shoreline in the Embayments.

**Common Tern** (*Sterna hirundo*) Since 1976 Common Terns have nested in significant numbers on artificial breeding platforms or “reef rafts” and are now also nesting on an island designed as tern habitat in the Cell One as part of TRCA's wetland creation project. At the peak of Common Tern numbers the breeding population represented 1.8% of the estimated North American population.

**Caspian Tern** (*Sterna caspia*) Caspian Terns have nested at TTP since 1976 with varying degrees of success. In 1985 the population at TTP peaked and represented 1.3% of the estimated Canadian breeding population. Their natural nesting preference is open sand and gravel beaches on islands where they have good visibility of the surrounding area.

## **Colonial Bird Monitoring**

TRCA conducts annual counts of Double-crested Cormorants and Black-crowned Night-Herons to track changes in populations and nesting areas. Upon completion of nesting the forests are also monitored to measure any impacts the birds have upon the health of trees. Ring-billed Gull management is an ongoing effort. Since the 1970s various management techniques have been employed for Ring-billed Gull population management. Some have estimated that if Ring-billed Gull management did not occur the population at TTP would be approximately 180,000 pairs. Common Tern and Caspian Tern populations are also monitored by counting nests and noting any obvious areas of stress. TRCA also works in cooperation with the Canadian Wildlife Service (CWS) to count Ring-billed Gulls and Herring Gulls about every five years. TRCA is also a partner with the CWS in long-term contaminant monitoring, as well as other colonial waterbird studies.



