MANAGEMENT OF COLONIAL WATERBIRDS AT TOMMY THOMPSON PARK

CORMORANT ADVISORY GROUP MEETING #12

Tuesday January 14, 2014
6:30 to 9:00 p.m.
Metro Hall, Room 314, 55 John Street, Toronto

The Living City Foundation | Toronto and Region Conservation for The Living City

AGENDA

6:30pm	**Welcome**	Ralph Toninger
6:35pm	**Review of 2013 colonial waterbird data and cormorant management strategy**	Ralph Toninger Karen McDonald
7:30pm	**Update on York University studies**	Gail Fraser
7:45pm	**Proposed Strategic Approach for 2014** • Work plan for 2014 season • Discussion • Timeline • TRCA Board Meeting	Ralph Toninger Karen McDonald
8:45pm	**Wrap-up and next meeting**	Ralph Toninger

GOAL & OBJECTIVES

GOAL

- To achieve a balance between the continued existence of a healthy, thriving cormorant colony and the other ecological, educational, scientific and recreational values of Tommy Thompson Park.

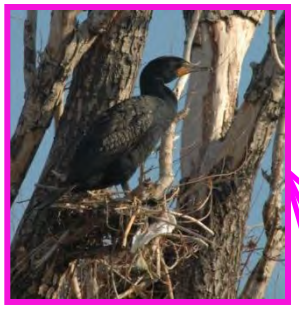
OBJECTIVES

- Increase public knowledge, awareness and appreciation of colonial waterbirds
- Deter cormorant expansion to Peninsula D
- Limit further loss of tree canopy on Peninsulas A, B and C
- Continue research on colonial waterbirds in an urban wilderness context

PUBLIC CONSULTATION SUMMARY

Advisory Group Meeting #11	December 3, 2012	• Review the 2012 population data and monitoring program • Review 2011 strategy and research results • Develop the 2013 Strategy
TRCA Board	January 25, 2013	• Present the 2013 Strategy for TRCA Board action
Colonial Waterbird Interpretation and Presentations	March – November, 2013	• Winter Waterfowl event • Spring Bird Festival • Butterfly Festival • Various universities and colleges • Winged Migration classes • Agencies and Partners (Environment Canada, Ontario Parks, CVC, Coca-Cola Canada, etc.)
Advisory Group Meeting #12	January 14, 2014	• Review the 2013 population data and monitoring program • Review 2013 strategy and research results • Develop the 2014 Strategy

COLONIAL WATERBIRDS OF TTP, 2013



DCCO
11,990 nests

BCNH
297 nests

HEGU
not counted

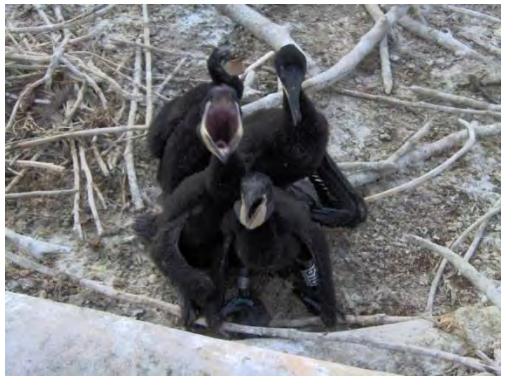
COTE
~0 (not counted)

GREG
4 nests

CATE
98 nests

RBGU
~35,000 nests

DCCO NESTS BY PENINSULA



DCCO NEST DENSITY (# Nests/Tree)				
	2010	**2011**	**2012**	**2013**
Peninsula A	19.5	19	13	5
Peninsula B	4.82	6.64	5.99	7.66
Peninsula C	6.01	6.3	6.2	6.25

	2003	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Pen A	55	81	311	228	101	49	22	39	19	13	5
Pen B	1582	1241	1763	1535	1072	1050	917	781	1262	982	1310
Pen B ground	948	809	872	868	1302	1009	1957	3310	4547	5812	6986
Pen C	0	0	2728	3494	4584	4609	4668	5304	5546	4934	3689
Total	**2585**	**5046**	**5674**	**6125**	**7059**	**6717**	**7564**	**9434**	**11374**	**11741**	**11990**

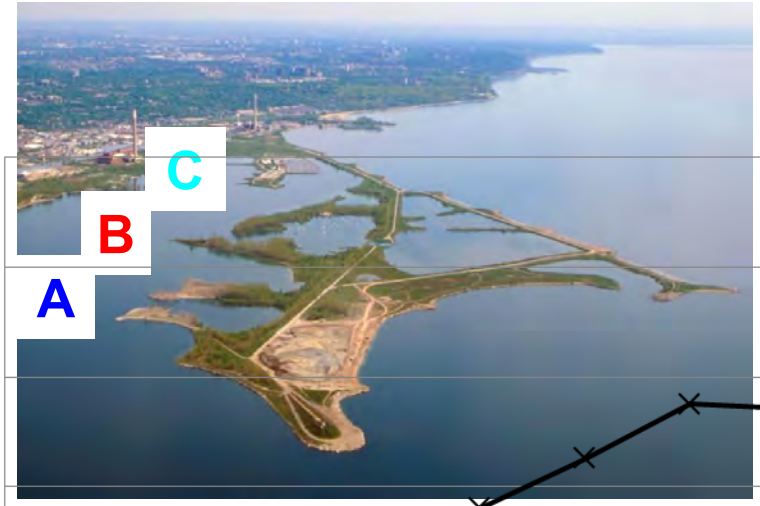
TTP DCCO – ALL NESTS BY PENINSULA

14000
12000
10000
8000
6000
4000
2000
0

2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

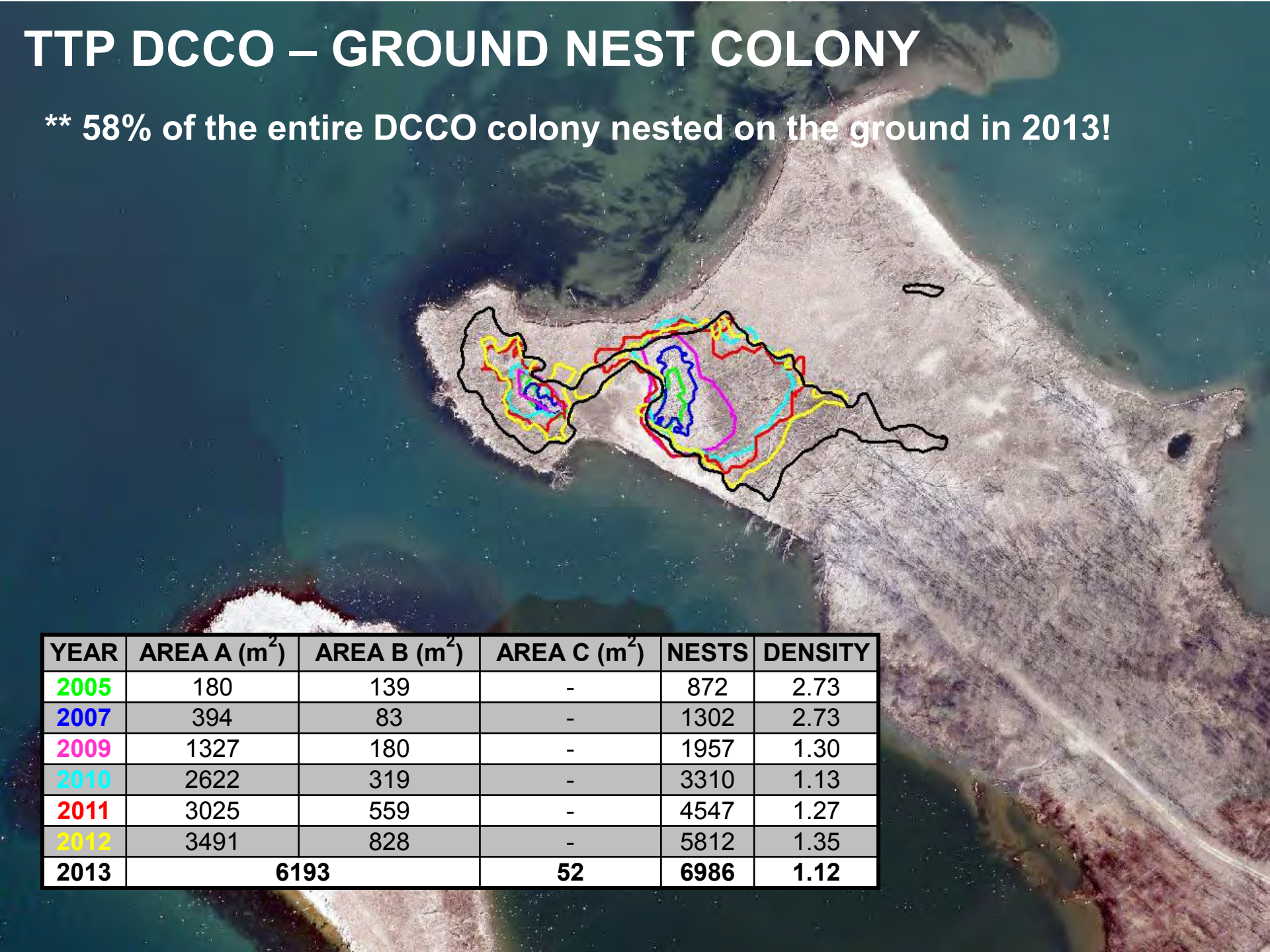
Peninsula A tree
Peninsula B tree
Pen B ground
Peninsula C tree
Total Nests

TTP DCCO – TREE NESTS BY PENINSULA



TTP DCCO – GROUND NEST COLONY

** 58% of the entire DCCO colony nested on the ground in 2013!



YEAR	AREA A (m^2)	AREA B (m^2)	AREA C (m^2)	NESTS	DENSITY
2005	180	139	-	872	2.73
2007	394	83	-	1302	2.73
2009	1327	180	-	1957	1.30
2010	2622	319	-	3310	1.13
2011	3025	559	-	4547	1.27
2012	3491	828	-	5812	1.35
2013	**6193**		**52**	**6986**	**1.12**

ANNUAL DCCO POPULATION CHANGE (PERCENTAGE)

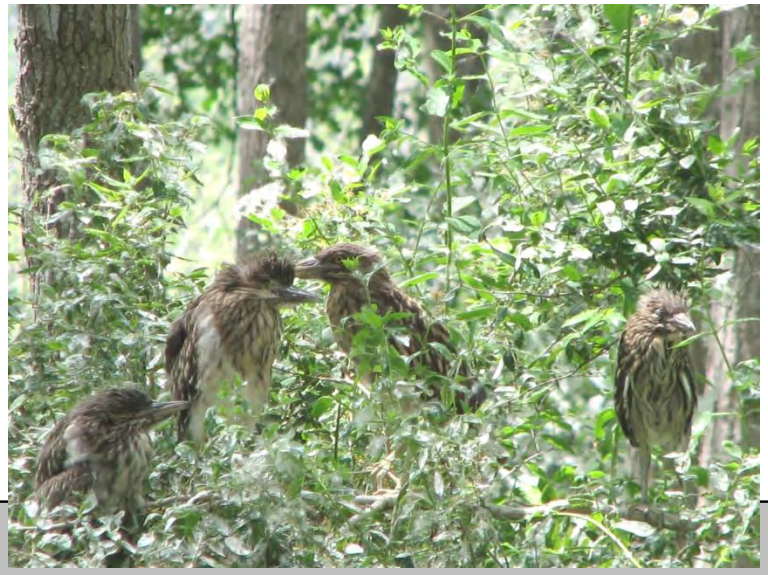
	2008	2009	2010	2011	2012	2013
Overall	-4.84	12.61	24.72	20.56	3.23	2.12
Peninsula A	-51.49	-55.10	77.27	-51.28	-31.58	-61.54
Peninsula B	-2.05	-12.67	-14.83	61.59	-22.19	33.40
Pen B Ground	-22.50	93.95	69.14	37.37	27.82	20.20
Peninsula C	0.55	1.28	13.62	4.56	-11.03	-25.23

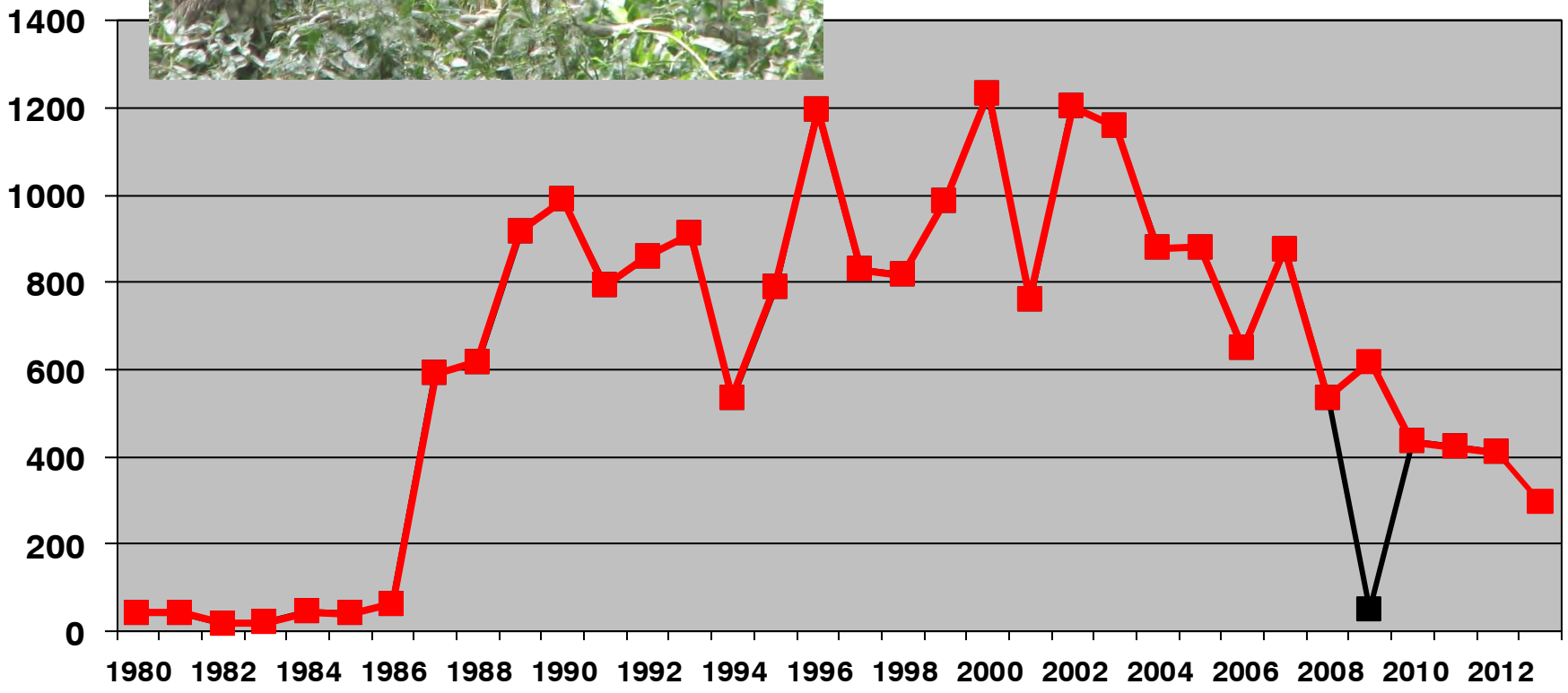
BCNH NESTS BY PENINSULA

- 16 pairs of BCNH “jumped” again to non-traditional nesting area (same area as 2009)

	2003	2004	2005	2006	2007	2008	2009*	2010	2011	2012	2013
Pen A	0	0	0	0	0	0	0	0	0	0	0
Pen B	255	278	270	145	146	81	38	3	100	10	14
Pen C	904	601	610	504	730	455	546	431	323	400	283
Total	**1159**	**879**	**880**	**649**	**876**	**536**	**584**	**434**	**423**	**410**	**297**

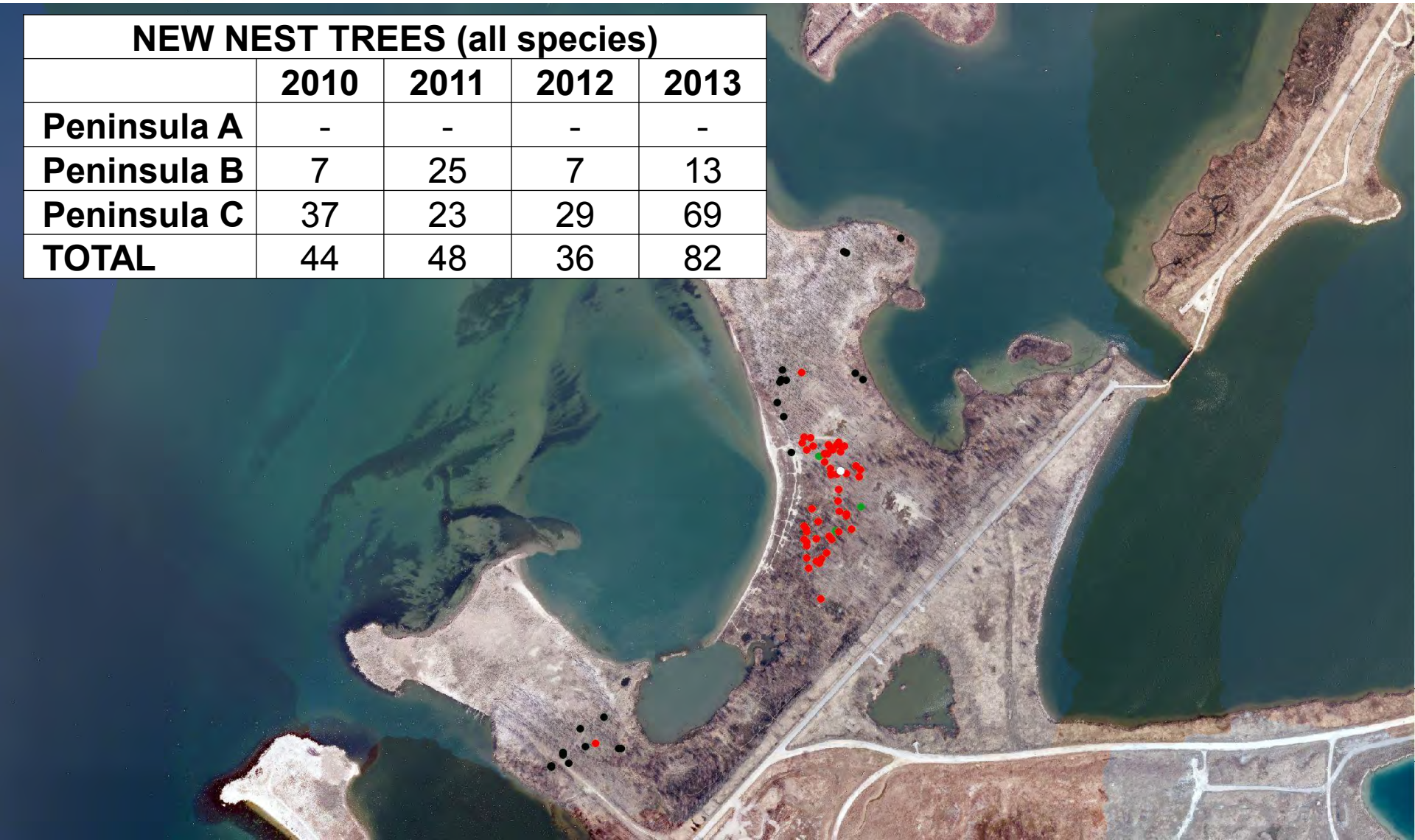
BCNH PEAK NEST NUMBERS 1980 TO 2013





New Tree Nest Expansion in 2013

NEW NEST TREES (all species)				
	2010	2011	2012	2013
Peninsula A	-	-	-	-
Peninsula B	7	25	7	13
Peninsula C	37	23	29	69
TOTAL	44	48	36	82



DCCO NEST TREE OCCUPATION

TREES OCCUPIED WITH DCCO					
	2009	**2010**	**2011**	**2012**	**2013**
Peninsula A	1	2	1	1	1
Peninsula B	179	162	190	164	171
Peninsula C	865	883	885	796	590
TOTAL	**1045**	**1047**	**1076**	**961**	**762**

CHANGE IN TREE OCCUPANCY				
	2010	**2011**	**2012**	**2013**
Peninsula B	-10%	+17%	-14%	+4%
Peninsula C	+2%	+0.2%	-11%	-26%
Overall	**+0.2%**	**+3%**	**-11%**	**-21%**

STRATEGIC APPROACH 2013

	Peninsula A	Peninsula B	Peninsula C	Peninsula D
Inactive Nest Removal (prior to 2012 breeding season)		*	*	
Enhanced Ground Nesting	*	*		
Pre-Nesting Deterrents		*	*	*
Post-Breeding Deterrents			*	*

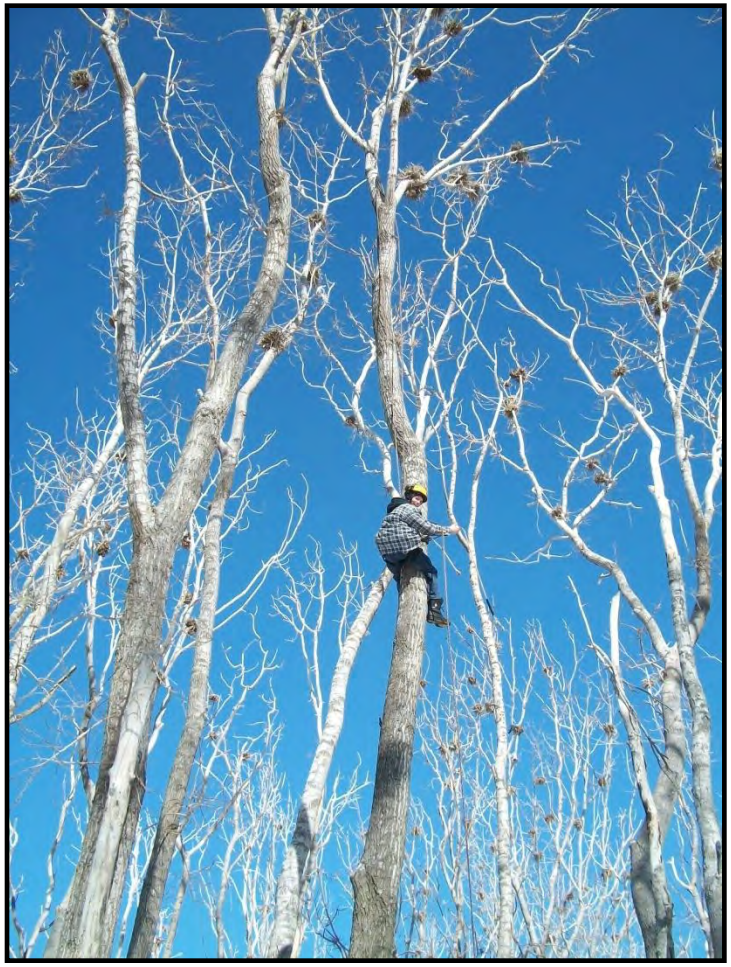
DCCO CONSERVATION ZONES

DCCO DETERRENT AREAS

INACTIVE NEST REMOVAL

- 2013 nest removal was done with forestry poles
- Nests were relocated to the Peninsula B Ground Nest colony to bridge the two areas

Year	Nests Removed
2001	31
2002	281
2003	647
2004	~400
2010	32
2011	236
2012	183
2013	115



2013 PRE-NESTING DETERRENTS

- Pre-nesting deterrents were largely scaled back (fewer staff and fewer days deterring)
- Active nest removal took place in strategic locations on Peninsulas B and C to prevent DCCO expansion into new trees
  - May 2 to May 23
  - 172 nests removed
    - 130 nests on Peninsula C
    - 42 nests on Peninsula B
  - Prior to removal, nests were closely monitored ensure eggs were no greater than 10 days old

2013 Ground Nest Enhancements

Peninsula A

- Audio (playbacks of nesting DCCO)
- Gull exclusion - tarp covering targeted DCCO ground nest area to prevent gull nesting
- Straw deployment for nesting materials
- No decoys
- Post-breeding soil additions to raise elevation on lower areas of Peninsula

Peninsula B

- Nests removed from trees placed between the 2 ground nesting sub-colonies to “bridge” the gap


Peninsula A


Peninsula B


Peninsula B


Peninsula C


Peninsula C


Peninsula C

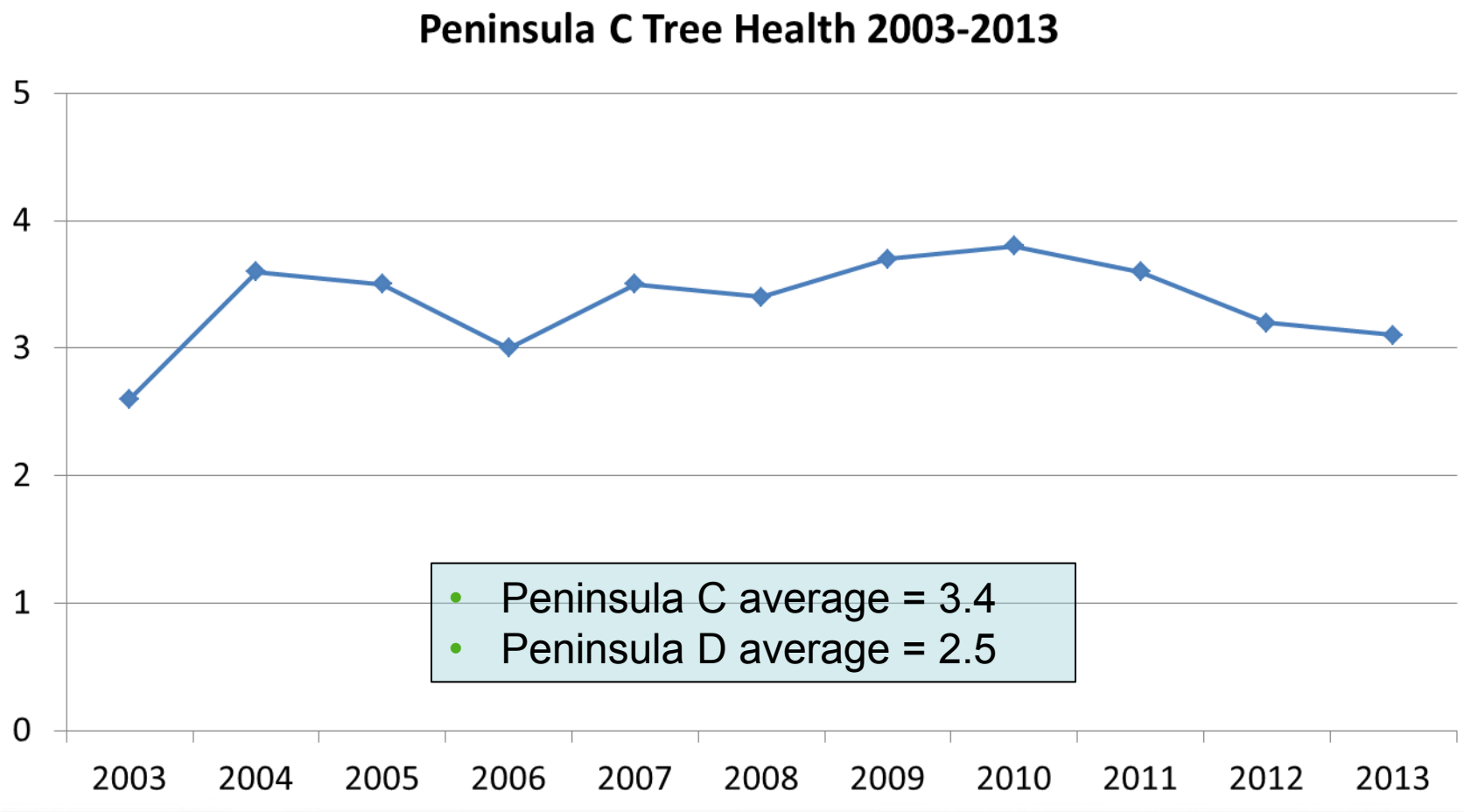

Peninsula C

Peninsula B


Peninsula D

Peninsula C Forest Decline

2013 Tree Health



2013 DCCO MANAGEMENT SUMMARY

Peninsula A

- Ground nest enhancements

Peninsula B

- Ground nest enhancements
- Active nest removals in strategic locations
- Tree nesting increased by 33% (328 nests and 13 new nest trees)
- Ground nesting increased by 20% (1174 nests)

Peninsula C

- Active nest removals in strategic locations
- Tree nesting decreased by 25% (1245 nests and 173 fewer nest trees, however 69 new nest trees were added)

2013 SEASON SUMMARY

- Prevented expansion onto Peninsula D
- Ground nests increased 592% from 2008 from 15% of the total colony in 2008 to 58% in 2013
- Tree nests decreased on Peninsula C, but increased on Peninsula B
- Overall population increase of only 2%, supported by the expansion in the ground nest colony
- Webcam on Peninsula B (note, technical difficulties)
- Viewing blind on Peninsula C with views of BCNH
- BCNH population declining – some moved to non-traditional nest area
- GREG population declining – some unpaired nests?

Ice Storm Damage

UPDATE ON YORK U RESEARCH

2014 PROPOSED STRATEGIC APPROACH

	Peninsula A	Peninsula B	Peninsula C	Peninsula D
Inactive Nest Removal (prior to 2014 breeding season)		*	*	
Enhanced Ground Nesting	*	*		
Pre-Nesting Deterrents		*	*	*
Post-Breeding Deterrents			*	*

DCCO CONSERVATION ZONES

DCCO DETERRENT AREAS

TO CONSIDER FOR 2014

- Should we continue with attraction on Peninsula A?

AUTHORITY BOARD

January 31, 2014

Black Creek Pioneer Village

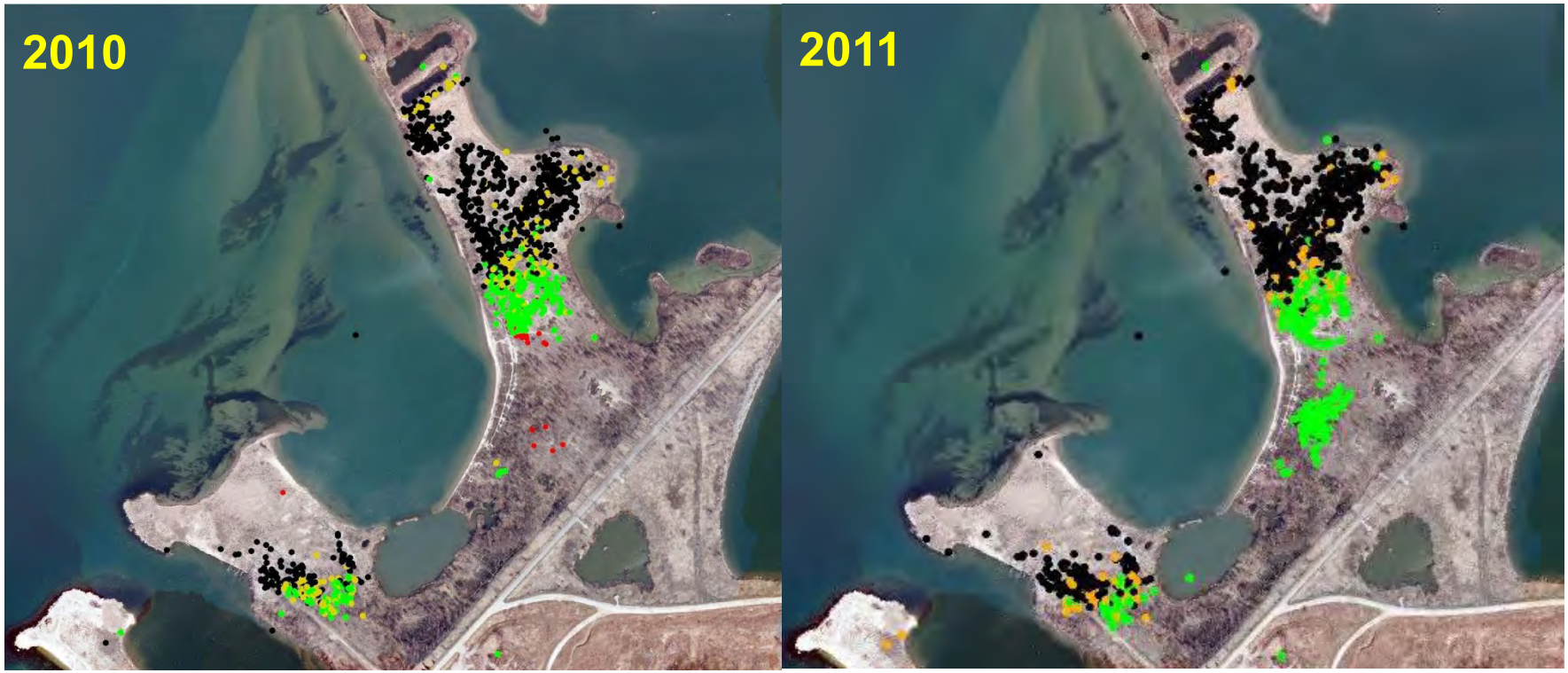
1000 Murray Ross Pkwy, Downsview

SPRING BIRD FESTIVAL

Saturday May 10, 2014
8 a.m. to 4 p.m.

- Early bird hikes
- Family walks, guided bird hikes
- **Colonial waterbird hikes**
- Baillie Birdathon
- Bird banding demonstrations
- Children's activities
- Educational displays

CHANGE IN TREE HEALTH 2010-2011



- Live Trees
- Tree in Decline
- Dead or Dying Trees