

CORMORANT ADVISORY GROUP MEETING #13

Thursday, February 26, 2015

6:30 p.m. to 9:00 p.m.

Metro Hall, Room 303, 55 John Street, Toronto

FINAL MEETING NOTES

Attendees:

Karen McDonald, TRCA
Nikita Moores, TRCA
Lionel Worrell, TRCA
Nancy Gaffney, TRCA
Gail Fraser, York University
Lisa Rosenberger, York University
Megan McRae, York University
Glenn Coady, Local Naturalist
Jeanette Harvey, City of Toronto
Ainslie Willock, Canadians for Snow Geese *
Lynne Freeman, Toronto Ornithological Club
Barry Kent Mackay, Zoocheck Canada*
Paul Scott, Aquatic Park Sailing Club
Liz White, Animal Alliance of Canada*
(*Denotes member of Cormorant Defenders International)

These notes reflect the general nature of the meeting discussion. If there are errors or omissions, please contact N. Moores at nmoores@trca.on.ca.

Comments contained herein reflect the opinion of the individual and do not necessarily reflect the position of the organization they represent.

1. Welcome

K. McDonald welcomed the group to the 13th Cormorant Advisory Group Meeting. She thanked everyone for attending.

2. 2014 highlights and public outreach

K. McDonald recapped the media outreach for the 2014 management season. Highlights included Linda Wires book launch at the TTP Spring Bird Festival: *The Double-crested Cormorant: Plight of a Feathered Pariah*. The Great Lakes Wild Series on Love Nature TV "Bad Reputations" and two YouTube videos part of a Wild Toronto Series, "Canopy of Cormorants" and "Haunt of the Herons".

2. Review of 2014 colonial waterbird data and the 2014 cormorant management strategy

a) 2014 Colonial Waterbird Data

K. McDonald stated that the goal and objectives set out for the TTP DCCO Management Plan are continuing to work and will remain the same for 2015. She then proceeded to present the results of

the 2014 colonial waterbird monitoring and DCCO management strategy. All seven species of TTP colonial waterbirds nested in 2014. Ring-billed Gull (RBGU) nest estimates appear to be holding steady at approximately 35,000 nesting pair. Herring Gull (HEGU) nests were not counted, but as in recent years remain low in number. Common Terns (COTE) nested on the newly designed tern rafts in Embayment A and Embayment D. Unlike past years there was no significant predation event. This can be attributed to the angled, smooth metal predator guard installed on each raft. A total of 263 Caspian Tern (CATE) nests were counted on Peninsula B and TRCA is optimistic that they will inhabit newly created nesting islands in Embayment D in the future. Six Great Egret (GREG) nests were counted.

TRCA is pleased with the results from the 2014 Strategic Approach. In 2014 a total of 12,409 cormorant nests were counted on three peninsulas, which represents an increase of 3.49 percent from 2013. Peninsula C had a total of 3720 nests, a 11.36 percent decrease from 2013 and the third year in a row that tree nesting declined, while nest density increased slightly. This likely represents a decrease in tree nest availability, that is, that the forest on Peninsula C can no longer support the same number of tree nests as in previous years because of the decline in forest health. This year presented by far the largest amount of tree expansion pressure since management began. Additional staff were required to carry out the number of active deterrents required.

Peninsula B had a total of 1316 tree nests, which is a 0.46 percent increase from 2013. Thirteen new nest trees were colonized and it is speculated that this was a result of the DCCO following the Black-crowned Night Herons.

The DCCO ground nesting population on Peninsula B increased by 11.64 percent from 2013 for a total of 7799 nests. The ground nesting colony now represents 63 percent of the entire TTP DCCO population. Interestingly, ground nest density decreased, suggesting that if allowed, DCCO will take more space for nesting. Lower nest density will likely result in fewer territorial disputes and a safer environment for chick rearing. In 2014 the two ground nesting sub-colonies that were finally joined through a narrow band of nests in 2013 became separate again. The small sub colony that appeared in 2013 with only 10 nests increased in 2014. This location is near the CATE nesting area.

This year a new approach was taken to count the ground nests. N. Moores photographed the peninsulas from a helicopter. The photographs were then stitched together using ArcGIS and individual nests were counted. This method allowed for minimal disturbance to the colonies, decreasing the risk of displacing the CATE from their nesting area. G. Fraser inquired as to whether or not error was calculated in the counts. K. McDonald commented that no error was determined. The nests were only counted once. In the coming weeks wooden markers will be distributed on Peninsula B to facilitate the stitching of photos. The idea of drone cameras is being explored for 2015 nest counts. P. Scott added that photographing the tree colonies would provide helpful insight into surface area loss and it should be considered when conducting 2015 nest counts. K. McDonald expressed the difficulty with determining such a value but indicated that it would be taken into consideration for future nest counts.

Tree nesting on Peninsula A increased by 64 percent, fourteen nests were counted in the one Siberian Elm tree remaining. In addition to the tree nesting the first ground nesting on A was observed. 10 nests were counted. These nests were monitored by G. Fraser. G. Fraser commented that none of the nests were successful probably due to young, inexperienced birds nesting, or due to predation.

G. Coady added that DCCO had been observed nesting in Cranberry Marsh, and in Whitby Harbour. All nests observed were not successful with the speculation that they were predated by raccoons.

An increase in BCNH nests were observed in 2014 with a total of 397 observed on Peninsulas B and C, up from 297 nests from 2013. Similar to 2009, much of the BCNH colony on Peninsula C moved away from their traditional nesting area, across the clearing and closer to the trail systems, a large quantity of BCNH also moved even further away to the most eastern forest of Peninsula B. This move caused the TRCA to close the pedestrian trail closest to this new colony to reduce the disturbance the public might have to the nesting birds. There was only speculation as to why this move occurred, much of it relating to the decline of tree health and the need for a healthy forest canopy and nest trees, as well as interspecific competition with DCCO. G. Coady commented that due to the competition from the DCCO for the canopy BCNH would be much better off nesting in lower shrubs as is seen in many other BCNH colonies.

b) 2014 DCCO Management Strategy review

The adaptive approach undertaken in 2013 was repeated again in 2014, where pre-nesting deterrents were used only as necessary to prevent DCCO expansion beyond their existing nesting areas. Inactive nest removal took place during the winter, prior to the 2014 breeding season. 101 inactive nests were removed with the usual method of forestry poles from Peninsula B and C, nests were unable to be placed in the ground colony due to being frozen to the ground late in the season. Pre-nesting deterrents were executed in full force; they were required to prevent DCCO from occupying new trees. Active nest removal was required to deter expansion; 335 active nests were removed from Peninsula C and 230 from Peninsula B following the protocol of not removing any nests greater than 10 days old. A total of 229 new trees were occupied by either BCNH and/or DCCO, with overall DCCO tree occupancy decreasing by 8 percent. A new deterrent area was added, encompassing the forest that saw the BCNH expansion.

The only enhancement applied to Peninsula A was the deployment of straw. No enhancements were applied to Peninsula B.

TRCA continued public outreach and education about colonial waterbirds at TTP public events and special tours. Due to the shift of the BCNH colony the viewing blind offered only views of the DCCO.

In summary, 2014 management included Peninsulas A ground nest enhancements; pre-nesting deterrents and active nest removal on Peninsulas B and C; and a viewing blind on Peninsula C.

c) Tree Health

K. McDonald reviewed the graph outlining tree health on Peninsulas C and D. Since most of the colony nest trees are dead, as in 2013 only a subset of trees within the Peninsula C DCCO nesting area was assessed, as well as the control plot on Peninsula D and newly added BCNH expansion zones. Data shows that average tree health is as follows (Peninsula C (DCCO) = 3.4), (Peninsula C (BCNH) = 1.2) and (Peninsula D = 1.8); 1 being a healthy tree and 5 being a dead tree.

3. Update on York University Studies

a) Double-crested Cormorants

G. Fraser continued with her productivity research for both tree and ground nesting DCCO. She followed 36 ground nests, selected from different areas, including both edge and interior habitats. 91.7 percent of these nests successfully fledged chicks; the average number of chicks fledged per nest was 2.1 - a very productive colony.

On Peninsula C, 88 nests in five trees were followed. 45 percent of these nests successfully fledged chicks; the average number of chicks fledged per nest was 2.1. G. Fraser commented on the decreased productivity in the trees being mainly due to breaking limbs, causing lost nests.

G. Fraser, with TTP Bird Research Station Coordinator Nigel Shaw and TTPBRS volunteers, banded 84 chicks with aluminum bands and colour bands that are unique to TTP (black band with white lettering). A total of sixteen observations of banded adults were made by L. Rosenberger in 2014 and one individual was observed on one of the trail cameras set up as a camera trap within the forested colony. Observations of banded DCCO provide valuable information including nest site fidelity.

b) Black-crowned Night Herons

G. Fraser monitored a total of 68 nests in 32 trees. The overall productivity of these nests was 31 percent. The 2014 nest usurpation rate for BCNH was 14.7 percent for the 68 BCNH nests that were followed. This was higher than the 2013 usurpation rate of 6.4 percent.

c) Raccoon occupancy - camera trap study

A student of G. Fraser will be observing the camera trap data and will compile the results.

d) DCCO impacts on BCNH – Thesis presentation

L. Rosenberger presented her thesis on the subject: "Are Double-crested Cormorants responsible for the decline in Black-crowned Night Herons in Tommy Thompson Park?"

Her findings were as follows; no negative effect is seen on the BCNH population by DCCO on Peninsula B, a negative effect is seen on BCNH nest density and location by DCCO on Peninsula C. Observations such as nest usurpation by DCCO on BCNH, as well as interactions between the two species were made and concluded that they were not a major reason for the decline in BCNH populations. L. Rosenberger concluded that Double-crested Cormorants are not responsible for the decline in the BCNH population. There are other possible factors such as fire ants, storm damage and raccoon predation.

G. Coady posed the question of whether fish could be the limiting factor due to the number of fish eating birds. K. McDonald and L. Rosenberger noted that the different species practice different foraging habits. K. McDonald added that TRCA fish data will be added to next year's meeting. G. Fraser commented on the challenges of obtaining BCNH stomach contents, making it very difficult to examine what they are eating. K. McDonald looked to G. Fraser for information on effect of fire ants on BCNH productivity. Although G. Fraser had no concrete data, she did express that she is not convinced the fire ants are not having an effect on productivity.

e) DCCO information poster

M. McRae presented a DCCO information and awareness poster. The poster is meant to crack the pre-conceived notions associated with DCCO. G. Coady suggested that the large picture be changed to just the head of a cormorant to focus on the beautiful features such as the vibrant blue mouth and the jewel like eyes. G. Coady also noted that forests are dynamic habitats and that they are meant to change and develop, even die. K. McDonald indicated that the poster is to be displayed in the staff booth and she asked the group for suggestions on any other locations. The following suggestions

were made: nearer to the colony, at City Hall (maybe temporarily during Earth Week), on the website, at the Colonel Sam Smith Bird Festival and for it to be broken up into smaller segments and put throughout TTP. A suggestion was made to put video and photography footage on an interactive screen in the Staff booth for further public interpretation and interest. Concern was voiced regarding the image of the fish on the poster, but the lack of information explaining the negligible effects of DCCO on the fish populations. It should be highlighted that recreational fishing is in fact excellent at the park and that the main DCCO appears to be the non-native alewife.

4. Billy Bishop Airport expansion EA – Colonial Waterbirds

N. Gaffney addressed the airport expansion and how the TTP birds may be impacted. She looked to the group for insight and suggestions. N. Gaffney noted that where the runway expansion is to take place; in the central waterfront, TRCA has no jurisdiction. There will be two opinions; there will either be no issue with the birds or the birds will pose an issue requiring management beyond what the TRCA will support. B. Kent MacKay voiced concern over the thousands of waterfowl that occupy the waters of the eastern gap. L. White furthered that concern, indicating that it will be gulls and Canada Geese that will pose a huge threat for the jets. Also, US data suggests that cormorant's rank 11th out of 119 bird species in terms of impact during bird strikes.

G. Fraser suggested that due to planes being built to be quieter, birds will be less likely to be startled out of the way. One year of radar studies should be requested. This would give a good indicator of the birds in the flight zone.

5. Proposed Strategic Approach for 2015

K. McDonald proposed the same strategic approach for 2015 as in 2014:

- Maintain the same DCCO conservation areas, as well as deterrent areas (including newest addition);
- Remove inactive nests from Peninsula B and C;
- Continue with active deterrents only where they are needed to prevent expansion.

6. Wrap Up

K. McDonald reminded members that the 2015 Strategic Approach communication will be taken to the TRCA Board in early 2016 at Black Creek Pioneer Village. Everyone is welcome to attend. She also invited the group to the annual TTP Spring Bird Festival on Saturday May 9, 2015, International Migratory Bird Day. The festival will be similar to previous years.

K. McDonald thanked everyone for attending and for their ongoing commitment to the Advisory Group. The next meeting is expected in January 2016.