MANAGEMENT OF COLONIAL WATERBIRDS AT TOMMY THOMPSON PARK

CORMORANT ADVISORY GROUP MEETING #4

Web page: http://www.trca.on.ca/cormorants

Wednesday, Dec 10, 2008
6:30 p.m. to 9:00 p.m.
Mennonite New Life Centre,
1774 Queen Street East, Toronto
## CORMORANT ADVISORY GROUP
### MEETING #4
Wednesday December 10, 2008
6:30 p.m. to 9:00 p.m.

**AGENDA**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
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</thead>
<tbody>
<tr>
<td>6:35pm</td>
<td>Welcome and Introductions</td>
<td>Suzanne Barrett</td>
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<tr>
<td>6:45pm</td>
<td>Review of Previous Meetings</td>
<td>Suzanne Barrett</td>
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<tr>
<td>7:00pm</td>
<td>Review of 2008 colonial waterbird data and 2008 cormorant management strategy</td>
<td>Ralph Toninger</td>
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<tr>
<td>7:40pm</td>
<td>Update on York University studies</td>
<td>Gail Fraser</td>
</tr>
<tr>
<td>8:00pm</td>
<td>Next Steps</td>
<td>Ralph Toninger</td>
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<tr>
<td></td>
<td>• Completion of the 2008 Cormorant Management Strategy</td>
<td></td>
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<td>• Moving into 2009</td>
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<tr>
<td>8:55pm</td>
<td>Wrap-up and next meeting</td>
<td>Suzanne Barrett</td>
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PROCESS – DOUBLE-CRESTED CORMORANTS AT TOMMY THOMPSON PARK

- **November 2007**: TRCA embarked on a process to involve stakeholders and public in assessing need for management of cormorant populations

- **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

a. Increase public knowledge, awareness, and appreciation of colonial waterbirds

b. Deter cormorant expansion to Peninsula D

c. Limit further loss of tree canopy on Peninsulas A, B and C

d. Continue research on colonial waterbirds in an urban wilderness context
<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advisory Group Meeting #1</strong></td>
<td>January 24</td>
<td>- Values and interests of TTP&lt;br&gt;- Conditions and concerns of DCCO colony&lt;br&gt;- Need for management&lt;br&gt;- Strategies to address concerns</td>
</tr>
<tr>
<td><strong>Advisory Group Meeting #2</strong></td>
<td>February 19</td>
<td>- Evaluate management options&lt;br&gt;- Propose alternative approaches</td>
</tr>
<tr>
<td><strong>Cormorant Webpage launched</strong></td>
<td>March 3</td>
<td>- Includes background materials, Advisory Group meeting notes and presentations, Public Meeting workbook and meeting notes, relevant links</td>
</tr>
<tr>
<td><strong>Public Meeting</strong></td>
<td>April 3</td>
<td>- Advertised in Toronto Star, The Mirror, TRCA website, TTP information board, TRCA distribution lists, some Advisory Group member websites&lt;br&gt;- Canada Newswire press release, Global TV coverage&lt;br&gt;- Presentations, facilitated round table discussion, individual workbooks for commenting</td>
</tr>
<tr>
<td><strong>Advisory Group Meeting #3</strong></td>
<td>April 23</td>
<td>- Review public response&lt;br&gt;- Discuss 2008 strategy</td>
</tr>
<tr>
<td><strong>TTP Spring Bird Festival</strong></td>
<td>May 10</td>
<td>- Guided tours of cormorant colony&lt;br&gt;- Public survey on TTP cormorants</td>
</tr>
<tr>
<td><strong>Authority Board</strong></td>
<td>May 23</td>
<td>- Present 2008 strategy for Authority action</td>
</tr>
<tr>
<td><strong>Advisory Group Meeting #4</strong></td>
<td>Dec 10</td>
<td>- Review 2008 strategy and preliminary research results</td>
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</table>
MANDATE

- Provide input and advice
- Ensure that all perspectives are considered
- Provide linkages with other stakeholders

TRCA
Restoration Services

Federal/Provincial
Canadian Wildlife Service
Ontario Ministry of Natural Resources
Toronto Port Authority
Transport Canada

City of Toronto
Parks, Forestry and Recreation

Academia
University of Toronto
York University

Interest Groups
Aquatic Park Sailing Club
Cormorant Defenders International:
  Animal Alliance of Canada
  Canadians for Snow Geese
  Earthroots
  Zoocheck Canada Inc.
Friends of the Spit
Ontario Nature
Toronto Island Residents
Toronto Ornithological Club
Local Experts
Advisory Group Meetings achieved:

- Better understanding of the range of values that TTP represents to different stakeholders.
- Improved understanding of significance and values associated with waterbird colonies, including cormorants, at TTP.
- Development and refinement of the goal and objectives.
- Majority agreement that some form of management is necessary, providing that the methods are humane to cormorants and do not affect other wildlife at TTP.
- Refinement of proposed management techniques for use on each of the four peninsulas.
- Advice on consultation with the public.
Advisory Group
Ongoing concerns:

• The effectiveness and acceptability of egg oiling.
• The compatibility of encouraging ground nesting with the use of egg oiling.
• The use of certain deterrent techniques (e.g., noise makers).
• Potential effects of management on other colonial nesting birds.
Public Meeting

• Support for consultative, transparent process.
• Support for overall goal, although some concern that “balance” can be interpreted in different ways.
• Most people endorsed objectives to increase public knowledge, awareness and appreciation of colonial waterbirds and to continue research.
• Considerable support for deterring cormorants from nesting on Peninsula D, using least intrusive methods.
• Range of opinions on limiting further loss of tree canopy on other peninsulas, and methods to accomplish this.
• Methods should ensure humane treatment of cormorants and avoid disturbance of other species.
• Of the proposed methods, egg oiling had least amount of support.
• Participants suggested applying various combinations of methods on each peninsula.
May 23, 2008 Authority Meeting

Summary

• Gord MacPherson presented 2008 Cormorant Management Plan
• 10 delegations
• 15 correspondence items
• Recommendation carried
RECOMMENDATIONS

• ...continue to work with the Cormorant Advisory Group... in addressing management concerns regarding colonial waterbirds at TTP;

• ... work ... with regulatory agencies to seek approval for the 2008 management strategy... ;

• ... implement the proposed management strategy for 2008;

• ...continue to actively participate in ... committees/working groups addressing the management and protection of colonial waterbirds;

• ...staff report back to the Authority next year regarding the management of Double-crested cormorants at TTP.
<table>
<thead>
<tr>
<th>Strategic Approach 2008</th>
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</thead>
<tbody>
<tr>
<td><strong>Post-Breeding Deterrents</strong></td>
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<tr>
<td><strong>Enhanced Ground Nesting</strong></td>
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<tr>
<td><strong>Restoration</strong></td>
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<tr>
<td><strong>Experimental Egg Oiling</strong></td>
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</tbody>
</table>
Nesting Pairs of Colonial Waterbirds at TTP 2008

- Double-crested Cormorant: 7,038
- Black-crowned Night-Heron: 566
- Herring Gulls: 30
- Ring-billed Gulls: 30,000
- Common Tern: 310
- Caspian Tern: No success
- Great Egret: 6
## DCCO Nest Numbers
### 1998 to 2008

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<tbody>
<tr>
<td>A</td>
<td>436</td>
<td>695</td>
<td>933</td>
<td>907</td>
<td>730</td>
<td>779</td>
<td>557</td>
<td>311</td>
<td>228</td>
<td>101</td>
<td>49</td>
</tr>
<tr>
<td>B</td>
<td>1307</td>
<td>1814</td>
<td>2071</td>
<td>3138</td>
<td>1844</td>
<td>1582</td>
<td>1241</td>
<td>1763</td>
<td>1535</td>
<td>1139</td>
<td>1074</td>
</tr>
<tr>
<td>B ground</td>
<td>344</td>
<td>990*</td>
<td>809</td>
<td>872</td>
<td>868</td>
<td>1302</td>
<td>1009</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0</td>
<td>0</td>
<td>30</td>
<td>281</td>
<td>625</td>
<td>633</td>
<td>2439</td>
<td>2728</td>
<td>3494</td>
<td>4699</td>
<td>4906</td>
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<tr>
<td>Total</td>
<td>1743</td>
<td>2509</td>
<td>3034</td>
<td>4510</td>
<td>3543</td>
<td>3942</td>
<td>5855</td>
<td>5674</td>
<td>6125</td>
<td>7241</td>
<td>7038</td>
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- Peninsula A 42, and Peninsula B 948
BC NH Nest Numbers 1980 to 2008
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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<tbody>
<tr>
<td>A</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>163</td>
<td>255</td>
<td>278</td>
<td>270</td>
<td>145</td>
<td>147</td>
<td>86</td>
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<tr>
<td>C</td>
<td>803</td>
<td>988</td>
<td>1235</td>
<td>758</td>
<td>1040</td>
<td>904</td>
<td>601</td>
<td>610</td>
<td>504</td>
<td>769</td>
<td>480</td>
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<tr>
<td>Total</td>
<td>818</td>
<td>988</td>
<td>1235</td>
<td>758</td>
<td>1223</td>
<td>1159</td>
<td>879</td>
<td>880</td>
<td>649</td>
<td>916</td>
<td>566</td>
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</table>
TIP Nests Numbers by Peninsula

DCCO
Pen A
Pen B
Pen C
Ground

[Graph showing nest numbers over time by peninsula, with data points for each year from 1990 to 2008.]
Nests Numbers of DCCO and BCNH at Tommy Thompson

1993
Nests Numbers of DCCO and BCNH at Tommy Thompson

1999

DCCO
BCNH
Nests Numbers of DCC O and BC NH at Tommy Thompson

2006

[Graph showing the number of nests from 1980 to 2008 for DCCO and BCNH.]
### Number of trees with nests

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCCO</td>
<td>4</td>
<td>178</td>
<td>847</td>
<td>1029</td>
</tr>
<tr>
<td>BCNH</td>
<td>0</td>
<td>50</td>
<td>203</td>
<td>253</td>
</tr>
<tr>
<td>BOTH</td>
<td>0</td>
<td>12</td>
<td>73</td>
<td>85</td>
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<tr>
<td>TOTAL</td>
<td>4</td>
<td>240</td>
<td>1123</td>
<td>1367</td>
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Nests Numbers of DCCO and BCNH at Tommy Thompson

**Figure 1:** Summary of the number of TRCA trees containing nests

Source: TRCA Data produced by University of Toronto (Eric Davies, Michelle Thomas, Mart Gross)

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**Trees Nested in per Year**

- **TOTAL**
- **DCCO**
- **BCNH**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Trees containing Nests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>200</td>
</tr>
<tr>
<td>1999</td>
<td>400</td>
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<tr>
<td>2001</td>
<td>600</td>
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<tr>
<td>2003</td>
<td>800</td>
</tr>
<tr>
<td>2005</td>
<td>1000</td>
</tr>
<tr>
<td>2007</td>
<td>1200</td>
</tr>
<tr>
<td>2009</td>
<td>1400</td>
</tr>
</tbody>
</table>

**n = 3599**
Pre-nesting Deterrents on Peninsula D

Least intrusive methods Favored

- **Human Presence**
  - Public use
  - Staff activities

- **Artificial Predators**

- **Noisemakers**
  - Staff controlled
  - Automatic devices
Post-Breeding Deterrents

Peninsula D and Tip of C

- Human Presence
- Artificial Predators
- Noisemakers
Enhanced Ground Nesting

- Peninsulas A and B
- Artificial structures that provide protection from park users and other intrusions
Restoration

- Revegetate with trees, shrubs and meadow species
- Natural Area Enhancement Plan
- Shrub planting to enhance BC NH
December 2008
TRCA cormorant advisory committee
G. Fraser, York University
Implications for Management and Monitoring

- Recommend activities that require being in the colony occur at night

- How areas adjacent to colony are accessed is important (water vs land)

- Quantify overall disturbance to colony

- Control observer based disturbance

- Predator control?
Additional Data Available for Analysis

- Productivity
- Fledging
- Nest attendance
- Average hatching date
- Social Behaviours
Next Steps
Enhanced Ground Nesting

- Peninsula A and B
- Enhance artificial structures that provide protection from park users and other intrusions
Encourage Ground Nesting

Techniques include; decoys, recordings, natural and artificial structures providing nesting materials.

Provide protection from the public, the environment, urban influences (raccoons, unauthorized activities).
Successful Ground Nest Enhancements
Cormorant Decoy

Photo credit - Columbia River Avian Predation Program
Current Ground Nest Enhancements at TTP
PENINSULA A - 2009 GROUND NEST ENHANCEMENTS

- Added natural structure with nest material
- Stakes with nest material and decoys
- York University study area
- Presqu’île Provincial Park

Peninsula B
Tires

PENINSULA B - 2009 GROUND NEST ENHANCEMENTS

Added natural structure with nest material

Current Ground Nesting Colony

Peninsula B
Revegetation and Habitat Restoration in Impacted Areas

Plant nodes in strategic areas

Soil amendment and seeding in specific areas
Restoration
Soil augmentation and nodal plantings of site appropriate species:
- willow species
- red-osier dogwood
- Speckled alder
- Poplar species
- Herbaceous species
Discussion
## Proposed Strategic Approach 2009

<table>
<thead>
<tr>
<th></th>
<th>Peninsula A</th>
<th>Peninsula B</th>
<th>Peninsula C</th>
<th>Peninsula D</th>
</tr>
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<tbody>
<tr>
<td><strong>Pre-nesting Deterrents</strong></td>
<td>*</td>
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<tr>
<td><strong>Post-Breeding Deterrents</strong></td>
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<td><strong>Enhanced Ground Nesting</strong></td>
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<td><strong>Experimental Egg Oiling</strong></td>
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2009 Timeline

• **Wednesday February 4** – Advisory Group Meeting to discuss 2009 Strategy
• **Friday March 27** – Authority Meeting to approve 2009 Strategy
• **Late Fall** – Advisory Group Meeting to review 2009 Strategy