Briefing Notes:
Double-crested Cormorants: working to make our Great Lakes healthy

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- The first four editions of the definitive (then and now) Checklist of American Birds, published in 1886, 1895, 1910 and 1931, list the Great Lakes as part of the historical breeding range of Double-crested Cormorants. However, due to persecution, they were eliminated as a breeding species from the Great Lakes before almost any solid records could be obtained.

- Linda Wires, author of *The Double-crested Cormorant: Plight of a Feathered Pariah*, 2014, provides strong evidence, including from First Nations, of cormorants as a breeding species in the Great Lakes prior to persecution that drove them to numbers to as low as 1,000 nesting pairs in the Great Lakes region after World War II.

- For decades cormorant numbers were kept artificially low because of persecution and pesticides so they were rarely seen in the Great Lakes region. Cormorants returned to the Great Lakes around 1920, and began to recover. Then following World War II, the population was again devastated by the world-wide use of DDT, driving their numbers down to just 100 nesting pairs until their second recovery began again in the late 1970s and early 1980s when DDT was largely banned.

- The extended absence of cormorants resulted in change to island and peninsula landscapes, some becoming treed. The recovery of cormorants has led to misguided concerns about their impact on island habitats and fish populations. Often, when a species has been severely depleted, once conditions are favourable, the surviving populations reproduces quickly until a natural balance is achieved, as determined by food and habitat availability. The Great Lakes cormorant population has now stabilized. Consequently, the regular census of the species in Ontario was stopped in 2011.

- Assertions that cormorants have returned in unprecedented numbers in eastern North America was definitively challenged in a 2006 Wires, L. R., and F. J. Cuthbert paper titled, *Historic Populations of the double-crested cormorant (Phalacrocorax auritus): Implications for conservation and management in the 21st century*.

- Double-crested Cormorant populations are widely distributed across the continent from Alaska to the West Indies, from Labrador to Mexico but are extremely vulnerable to disturbance and persecution because they often congregate and nest in colonies on islands and peninsulas. However cormorants are not a particularly abundant bird. They usually have only one brood a year and aren't normally reproductive until the age of two or three.

- Science and fact-based policy decisions are critical to wildlife management decisions. Papers by Wires and Cuthbert provide a scientific foundation for understanding the role of cormorants in the broader environment. Removing protection for cormorants is based on bias and not on science and has very serious consequences. And as long ago as 2003, the esteemed American Ornithological Union reviewed plans by the U.S. Fish and Wildlife Service to allow for depredation of cormorants and found that the decision was lacking scientific merit and was primarily political.

- Cormorants require a very specific uncommon habitat-type. They are a keystone species, or "bio-engineers" whose actions may affect the nature of the flora and fauna. Cormorants nest both in trees and on the ground, usually on islands, but at times on headlands or sea cliffs.

- Tree nesting cormorants remove branches for nesting material and their excrement coats some areas of leaf cover. This is a natural phenomenon but not one to which people are accustomed. This is because of the long absence of the species from the Great Lakes which has allowed the growth of trees on some islands and shorelines when they have not been that way in the past. Guano is a naturally occurring substance that, through time, enriches soil, thus encourages vegetation and should more accurately be called "organic". Use of the inflammatory term "toxic" illustrates the kind of bias inherent to the arguments against cormorants.

- Killing cormorants to maintain leafy treed islands is an unnatural and contrived ecological "stasis". The birds are the ecosystem. They contribute to the ecology of the island even when it looks different.

- The "impact" that cormorants have on biodiversity is positive, not negative: they add to the number of species present in the ecosystem. The Toronto and Region Conservation Authority, which manages the largest Double-crested Cormorant colony on the Great Lakes, found that fish populations have flourished around the cormorant colony.

- "Islands used by cormorants comprised a small proportion (*n* = 90, 3%) of the U.S. Great Lakes island resource, and <1% of the total island area. (Journal of Great Lakes Research, 2010)

- There is no scientific determination that the fish consumed by cormorants have a significant, measureable negative impact on what is available to commercial and recreational anglers. No species of fish desired by commercial or recreational anglers, or otherwise, is at risk in the wild because of cormorants. Where cormorants are present, large numbers of fish are present as well. As has been demonstrated at Tommy Thompson Park, the fish populations around the largest cormorant colony on the Great Lakes are robust and healthy.

- In addition, the bulk of cormorant diets in the Great Lakes are Round Gobies and Alewives, non-native species that compete with native species and are not of value to anglers or

commercial fisheries. Cormorants are "opportunistic, generalist feeders" and the fish they consume must occur in huge numbers, as is the case with gobies.

- Cormorants have evolved to occupy an ecological niche that includes eating fish. Every native species of fish co-evolved with cormorants. We have not found any scientific reports or other evidence of any fresh or saltwater species of fish or any other wildlife species having been endangered by cormorants.

- Last May 25th, the U.S. federal court ruled that culling of cormorants because the birds were "eating all the fish", was not justified and quashed the "depredation" orders that allowed tens of thousands of cormorants to be killed each year in 24 eastern U.S. states.

- The U.S. equivalent of our own Freedom of Information Act has produced internal documents showing what so many other studies have shown, that in a natural environment cormorants are not responsible for losses in fish populations.

- The Fish and Wildlife Conservation Act (FWCA) provides the Ministry with the necessary management tools for cormorants. Under the Act, the Ministry has the right to determine if and when management is required and what type of management an be employed.

- The FWCA allows for Ontario residents to harass and kill cormorants to protect their property but also protects cormorants from indiscriminate killing. There is no need to change the Act.

- Legislation and policy should be fact-based and founded on science. Science has already demonstrated that cormorants are a natural, integral part of the environment. Their recovery from near extinction is a "good news" environmental story. The tiny number of cormorant colonies that currently exist on the Great Lakes are a biological asset.

- Public awareness is catching up. The Toronto and Region Conservation Authority has embraced the cormorant colony at Tommy Thompson Park and staff are now teaching visitors about the role and value of cormorants and other colonial waterbirds (birds who live in a "colony") nesting there.