(Phalacrocorax auritus)

by Christianne Wilhelmson

It's a memorable sight. Out of the corner of your eye, you spot a dark coloured bird making its way to shore. It's sleek, with white tufts on both sides of its head and a yellow-orange throat. But there's something unusual about this bird; it's got a crook in its neck! As you continue to watch, the bird begins to descend and lands in a way that can only be likened to a 747 in terminal flare!

No need to get into rescue mode, this bird is fine. You've just witnessed the unique and unforgettable double-crested cormorant in action!

The double-crested cormorant is a bird that has made itself at home along many shores of North America. It's a resident of the east, west and Gulf coasts but over the last few decades, has moved into the interior as well. There are four subspecies but only two are found in British Columbia: Phalacrocorax auritus albociliatus, spring and summer breeding resident, and P.a. cincinatus, which only winters along our coast. Double-crested cormorants are bottom dwelling fish eaters. They eat mostly penpoint gunnel, crescent gunnel, shiner perch and snake prickleback, and they feed along bays, inlets, harbours, lagoons and estuaries. In BC, double-crested cormorants nest only in Georgia Strait, where they breed in colonies that range in size from a few to a few hundred nests. You may have seen them making their nests from sticks, seaweed, twigs and other marine debris on protected offshore rocks or islands.

Double-crested Cormorants nest in colonies ranging from a few nests to hundreds of nests, typically on protected offshore rocks and islands, and frequently in association with Pelagic Cormorant colonies. In British Columbia, nests are found 4 to 17 m above

high-tide line. Most nests are constructed on bare rock, ranging from sparse collections of twigs and seaweed, to elaborate structures of sticks, well lined with grasses, seaweed, feathers and marine debris. Occasionally trees, driftwood logs, pilings, and man-made structures are used for nesting (Campbell et al. 1990a; Siegel-Causey and Litvinenko 1993).

It's very difficult to get a real sense of the population of marine waterfowl because of the challenges in finding their nests and colonies. Until 2000, there hadn't been a complete survey of all double-crested cormorant colonies in 13 years. And prior to that, most colonies had never been surveyed on any kind of a regular basis. In 2000, a survey was done of the double-crested cormorant and its smaller, more slender cousin, the pelagic cormorant (Chatwin et al. 2001). The results revealed that both populations were experiencing "alarming declines". The double-crested population had declined by two thirds since 1987 (from 1981 nests down to just 602), while the pelagic had declined by half. Though the decrease in the double-crested numbers was not considered statistically significant (because of the small number of colonies surveyed and small increases in two colonies), the big drop in the pelagic population tells us we should be concerned about both groups.

The 2000 survey also found some shifts in where the double-crested cormorants were making their homes. They were no longer using two of the 11 previously surveyed colonies, and the population on Mandarte Island (just off Sidney, in the proposed Orca Pass International Stewardship Area), which had been increasing up until the 1980s, had suffered a large decrease from 1100 nests in 1983 to just 215 in 2000. However, a new colony with 70 nests was found at Mitlenatch Island (near Campbell River), and nests on Shoal Islands (off Crofton) had also increased.

Similar trends were found with the pelagic cormorant, which nests on rock cliffs, caves and islets along the entire BC coast. Nine of 26 previously surveyed colonies were no longer active and like the doublecrested cormorant, numbers had decreased significantly on Mandarte Island and increased on Mitlenatch.

Both populations of cormorants have experienced dramatic changes in their populations over the last 40 years. One reason may be variations in the availability of the fish they eat. Movement of herring up the Strait may explain the increase at Mitlenatch, however, it does not explain increases at Shoal Islands or the loss of the Hornby Island colony.

The overall decline of double-crested cormorants has resulted in the BC government "red listing" this species (defined as "extirpated, endangered or threatened"). Federally, the Committee on the Status of Endangered Species in Canada has placed it on a list of species of concern to be re-evaluated.

Though the double-crested cormorant is protected from hunting and the collection of its eggs under the BC Wildlife Act, the population is still under pressure. Detrimental impacts include human disturbance (in particular from increased numbers of boats and kayaks). Coming even moderately close to their colonies can disturb them, and when adults are flushed from their nest, they leave the eggs or young exposed to predators such as gulls and crows. The gulls and crows in turn attract Bald Eagles, which further disrupt the colonies. Cormorants are also threatened by oil spills, gill-net entanglement and toxic contamination.

In the 1970s, scientists discovered that double-crested cormorants had elevated levels of organochlorine pesticides such as PCBs. Since these birds feed on fish near shore and don't migrate far, toxins in the fish had bioaccumulated in the birds and were causing severe impacts on their health and breeding. They suffered from abnormalities, including deformed bills and low nesting success due to thin egg shells.

Levels of toxins in Georgia Strait cormorants began decreasing after the early 1970s, likely due in part to improvements in the regulation of pulp mill effluents. But in 1993 scientists again found them to have elevated levels of PCBs, PCDDs and PCDFs (Elliot and Noble 1993). Today, even with regulations to limit their use and disposal, persistent toxic chemicals are still in the marine environment and in the animals that live there. This tells us that though we have come a long way, there is still a lot of work to do to protect this and other marine birds.

WHAT CAN YOU DO?

- **Urge officials** to strengthen oil spill prevention and response plans, to make sure they address the needs of the double-crested cormorant and other shore birds.
- **Don't approach cormorant colonies** by foot, boat or kayak, and don't let dogs roam near them. Keep your distance, and use your binoculars.
- **Avoid using persistent toxins** (including household chemicals and lawn and garden pesticides), so that they don't get into our marine waters.