



## **Migratory Bird Program Question and Answers on the Preparation of a Supplemental Environmental Impact Statement or Environmental Assessment related to the Development of Revised Regulations Governing the Management of Double-crested Cormorants.**

### **Why are public comments being requested?**

The U.S. Fish and Wildlife Service (Service) is requesting public comments to guide the preparation of a Supplemental Environmental Impact Statement or Environmental Assessment related to the development of revised regulations governing the management of Double-crested Cormorants. Under current regulations, cormorant damage management activities are conducted annually at the local level by individuals or agencies operating under USFWS depredation permits, the existing Aquaculture Depredation Order, or the existing Public Resource Depredation Order. The depredation orders are scheduled to expire on June 30, 2014. This analysis will update the 2003 Final Environmental Impact Statement: *Double-crested Cormorant Management in the United States*.

### **What is a Double-crested Cormorant and where do they live?**

Double-crested Cormorants (*Phalacrocorax auritus*) are colonial-nesting waterbirds native to North America. One of 38 species of cormorants worldwide, and one of six species in North America, they are usually found in flocks, and are sometimes confused with geese or loons when on the water. Double-crested Cormorants nest in many coastal and lake locations throughout North America in five breeding areas: Alaska, Pacific Coast, Canadian and U.S. Interior, Northeast Atlantic Coast, and Southern U.S. The Canadian and U.S. Interior breeding population is the largest, extending from the Canadian Prairie Provinces eastward to the Great Lakes and surrounding smaller lakes. Cormorants winter primarily along the Atlantic, Pacific, and Gulf coasts and on large interior lakes and reservoirs.

### **What do Double-crested Cormorants eat?**

Cormorants eat mainly fish. Adults eat an average of one pound of fish per day, which is typically comprised of small (less than 6 inch) size classes. They are opportunistic and generalist feeders, preying on many species of fish, but concentrating on those that are easiest to catch. The composition of a Double-crested Cormorant's diet can vary considerably from site to site and throughout the year.

### **Do Double-crested Cormorants negatively impact fish populations in open waters?**

Cormorants do eat sport fish, though how much and what effect that consumption has on a fishery must be determined by diet studies and analysis of the fish population. Cormorant predation is one of many factors, such as water quality, predation by other fish, and angler catch which can affect fish populations. In certain areas, evidence suggests that DCCOs have contributed to declines in walleye, yellow perch, and smallmouth bass, whereas in other areas no such evidence exists for the decline of sport fishery stocks.

### **Do Double-crested Cormorants significantly affect vegetation and other birds?**

Cormorants do kill trees, shrubs, and other vegetation, due to accumulation of their guano, which is highly acidic, and removal of foliage for nesting material. If the species of vegetation being damaged is common, the ecological significance of such damage will be limited, although aesthetic concerns may exist. However, cormorant damage can be ecologically significant, as is the case on some Great Lakes islands where Double-crested Cormorants are causing severe damage to Carolinian vegetation, the rarest type of vegetation in the Great Lakes. In regard to impacts on other colonial waterbirds, such as herons and egrets, evidence of locally-significant impacts has been observed by some biologists, particularly in parts of the Great Lakes States and Canadian Provinces.

### **Are Double-crested Cormorants protected in the U.S.?**

Double-crested Cormorants are one of over 1000 species protected under the Migratory Bird Treaty Act (MBTA) of 1918, and subsequent amendments. This act was first passed to implement the terms of a treaty between the U.S. and Canada for the protection of migratory birds. Excessive market hunting of migratory birds prompted this treaty, which was later followed by treaties with Mexico, Japan, and Russia. Double-crested Cormorants were first protected by U.S. law in 1972 through an amendment to the Mexican treaty. Double-crested Cormorants may not be injured or killed, and nests with eggs or chicks may not be taken according to Federal and most State laws, unless specifically authorized.

### **What is the history of Double-crested Cormorant management?**

By the mid 1990s, Double-crested Cormorant populations were perceived to have a negative impact on the aquaculture industry and on natural resources at many locations across North America. Double-crested Cormorants have been implicated in several human– Double-crested Cormorants conflict issues including depredation of aquaculture stocks and local sport and commercial fisheries, as well as conflicts with other conservation interests such as damage to sensitive vegetation and other colonial nesting bird species. In 1998, the Service created an Aquaculture Depredation Order that allows for the control of Double-crested Cormorants without a permit at aquaculture facilities in 13 states (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Minnesota, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas). In 2003, the Service completed an Environmental Impact Statement on Double-crested Cormorant management and issued a Public Resource Depredation Order (PRDO). The PRDO allows the control of Double-crested Cormorants without a permit by certain government agencies in 24 states (Alabama, Arkansas, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, New York, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Vermont, West Virginia, and Wisconsin), when the birds cause negative impacts to public resources such as fish, wildlife, and plants.

## **How is the Service monitoring Double-crested Cormorant populations to ensure that they remain at sustainable levels?**

Coordinated waterbird population monitoring has been conducted intermittently over the past 30 years by the Service, the Canadian Wildlife Service, USDA-Wildlife Services, the States, and several universities. The various types of surveys include the Great Lakes Colonial Waterbird Survey, Atlantic Coast Colonial Waterbird Survey, winter roost surveys, Christmas Bird Counts, and Breeding Bird Surveys. Additionally, agencies that conduct local population control under the PRDO are required to evaluate the effects of their actions on Double-crested Cormorant populations and annually report their findings to the Service. Since 2005, cormorant populations have been censused every other year in the U.S. and Canadian Great Lakes.

## **What is the Status of Their Population?**

Double-crested Cormorant populations, especially those breeding in the Great Lakes States and provinces and wintering in the southeastern United States, have increased substantially since the mid-1970s, and may have reached or exceeded carrying capacity in some portions of the Great Lakes. Before that time, Double-crested Cormorants were considered a rare breeder in the Great Lakes, with the first confirmed nesting documented in 1913 (Wires and Cuthbert 2006). The reasons for the rapid expansion are unknown, but likely involved several factors, including U.S. Federal protection under the MBTA in 1972, the elimination of DDT, the expansion of the aquaculture industry and construction of reservoirs in the Southeast, and alterations of the Great Lakes fish communities.

The Double-crested Cormorant is the most abundant cormorant in North America. In the 2003 Final Environmental Impact Statement (FEIS), the Service estimated the total Double-crested Cormorant population to be two million, with nearly 70 percent of this number in the Interior population (much of which nests in Canada). While the total North American population increased rapidly from the 1970s into the 1990s (7.9 percent average annual growth), the overall rate of growth in the U.S. and Canada slowed during the 1990s. More recently, the population in the Great Lakes has declined slightly, from 114,507 breeding pairs in 2005, to 106,094 breeding pairs in 2009.

## **What comments are requested?**

The Service seeks comments to help determine future national policy for effective management of Double-crested Cormorant (*Phalacrocorax auritus*) populations within the United States. Primary management objectives surrounding Double-crested Cormorants are at times in conflict. They include meeting conservation obligations under the MBTA and other Federal laws, while enabling management of human-wildlife conflicts related to the expansion of Double-crested Cormorant populations, particularly in the Great Lakes and southeastern United States. Developing a comprehensive national policy requires consideration of the decision process at each of the geographic scales relevant to Double-crested Cormorant management.

Management decisions are made at the local level (including individual lakes, breeding colonies, aquaculture facilities, and roosts), at the State level, regional or national scales, and across international

borders. Under the current regulations, control activities are proposed and conducted annually at the local level by individuals or agencies operating under depredation permits, the Aquaculture Depredation Order, or the Public Resource Depredation Order. USFWS Regional Directors make annual decisions on whether to allow these activities. Ultimately, the USFWS Director will decide, through the National Environmental Policy Act (NEPA) process, on a national management strategy by June 30, 2014, at which time the existing depredation orders are scheduled to expire.

Comments and suggestions are being requested from the public, concerned government agencies, Tribes, industry, the scientific community, and other interested parties regarding the problem, objectives, and alternatives that have been described and identified in the notice of intent. The notice of intent can be found in its entirety at <http://www.gpo.gov/fdsys/pkg/FR-2011-11-08/html/2011-28755.htm>

Of particular interest are answers to the following questions:

- (1) Have we accurately described the problem? If not, how could it be better described?
- (2) Are there fundamental or means objectives regarding Double-crested Cormorant management missing from the list above that we should consider?
- (3) Should the current fundamental or means objectives be modified? If so, how?
- (4) How would you rank the relative importance of the identified fundamental and means objectives? Please provide your rationale.
- (5) Are there any other alternatives that should be evaluated? If so, please describe them in sufficient detail so that they can be evaluated.
- (6) Should any of the identified alternatives be modified? If so, how?
- (7) How would you rank the preliminary list of alternatives? Please provide your rationale.