

Public Resource Depredation Order for Double-crested Cormorants

Public Concern about the impacts of double-crested cormorants on the environment began over a century ago, when fishermen linked a decline in harvest to the fish-eating habits of cormorants. This concern has come and gone over the years, and re-surfaced in the 1990s, when cormorant populations increased substantially, particularly in the Great Lakes. In 1999, the U.S. Fish and Wildlife Service began a dialogue with the public about managing double-crested cormorants. In 2003, after significant input, the Service issued a Public Resource Depredation Order (PRDO). The PRDO authorizes certain entities to take cormorants (without a permit) when they are negatively impacting natural resources, such as fisheries, other colonial waterbirds, and plant communities.

The Double-crested Cormorant

To those living near or spending time on the Great Lakes, double-crested cormorants (*Phalacrocorax auritus*) may have become a familiar sight. They are often seen flying low, in a straight line or ragged-V formation, traveling to or from their breeding colonies. Adult birds look alike, with dark plumage tinted a glossy green on the head, neck, and underside. They have slender, hooked bills, webbed feet set well back on their body, and an orange throat pouch like their relative the pelican. Cormorants swim with their bodies submerged, head and neck above water, bills pointed slightly skyward, then dive underwater to catch fish. The species is named for the two small tufts or crests of feathers that appear for a short period of time on either side of the heads of adult birds in breeding plumage. One-to-two year old juvenile cormorants have gray or tan plumage.

Natural History

Double-crested cormorants breed in many locations throughout North America. They nest along the Pacific coast from southwest Alaska to Mexico, and in lakes from central Alberta to James Bay and Newfoundland, south to the Gulf of Mexico. Populations reside year-round along the Pacific coast. The population centered in the northern prairies spread eastward in the early 1900s to the Great Lakes, where cormorants may have nested before the earliest records were kept by ornithologists. The Great Lakes population migrates south along the Atlantic coast and Mississippi River drainage to over-winter in the southeastern states and Gulf of Mexico. Birds return north by May to breed and rear their young, often nesting on islands in the company of terns and gulls, great blue and black-crowned night herons, and great and snowy egrets.

Nests are made from sticks and twigs, and are located in trees or on the ground. They usually contain from two to four light blue eggs. Both adult birds incubate the eggs for about 28 days by wrapping their feet around them, and care for their young for about 10 weeks after hatching or until they become fully independent. Cormorants are expert divers, adapted naturally to forage underwater for fish. Fully-webbed feet propel their slim, streamlined bodies on dives that usually range from eight to 20 feet, although the birds can dive to greater depths. Specialized eye muscles provide the cormorants with acute vision above and under the water. Their feathers absorb moisture, helping them remain submerged for about 30 seconds. After foraging, cormorants may dry their feathers by perching in a distinctive wing-spreading posture.

From Decline to Public Resource Depredation Order

The most recent decline in the Great Lakes population of double-crested cormorants began during the 1960s and continued into the early 1970s due to human disturbance at nesting colonies, killing of birds, and the effects of chemical contamination from DDT. This decline has been reversed dramatically, as pollution control has lowered concentrations of toxic contaminants in their food supply, food is ample in their summer and winter ranges, and they are protected by federal and state laws. Today, the size of the North American breeding population has been estimated at about 372,000 pairs. Using values of one to four non-breeding birds per breeding pair yields an estimated total population of 1-2 million birds. Increasing cormorant populations have led to concerns about biological and economic impacts in parts of the United States. Such potential impacts include damages to public and private property, predation on fish in aquacultural facilities, risks to human health, and harm to natural resources such as native vegetation, fisheries, and other colonial waterbirds. Short-term management strategies, based on the issuance of depredation permits on a case by case basis, failed to meet the increasing demand for cormorant management.

The Management Plan and Environmental Impact Statement (EIS)

In November, 1999, the service published a notice in the Federal Register of its intention to prepare, in cooperation with The U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (USDA/WS), a Double-crested Cormorant Environmental Impact Statement (EIS) and National Management Plan to address the effects of cormorant population increase and range expansion. In 2000, twelve public scoping meetings were held at locations throughout the United States to gather information essential to the development of the Plan and EIS. Over 900 people attended these meetings, with 239 providing verbal testimony. Over 1,450 comments were received, either by mail or electronically. This public input, along with inter-agency and internal discussion, led to the formulation of six alternatives for cormorant management, which were incorporated into the Draft EIS/Management Plan. Public comments were invited on these alternatives by notice in the Federal Register, and during 10 public meetings on the Draft EIS/Management Plan held in 2002. The Service selected The Public Resource Depredation Order (PRDO) as its “Preferred Alternative,” in the Draft EIS/Management Plan, because of its potential to reduce local resource conflicts, increase management flexibility, and conserve a healthy cormorant population over the long term. The PRDO remained the preferred alternative after the Service analyzed public comments and issued a Final EIS/Management Plan in 2003.

The Public Resource Depredation Order

The Service finalized a regulation to implement the Public Resource Depredation Order in November, 2003. The regulation authorizes the take of double-crested cormorants, their eggs and nests, without a federal permit, by state fish and wildlife agencies, USDA/WS or their agents when depredating or about to depredate public resources on publicly or privately owned lands (with appropriate landowner permission) and fresh waters in 24 mid-continent states. Federally-recognized Tribes may also operate under the PRDO, but may carry out cormorant control only on reservation land or ceded lands within their jurisdiction. Public resources include fish (both free-swimming fish and stock at federal, state, and tribal hatcheries that are intended to be released in public waters), wildlife, plants, and their habitats. Fresh water may or may not include estuaries, depending on state definitions. Damage control activities may be undertaken after the Service receives a one-time written advance notification from the action agency. Cormorants may only be taken by egg oiling (100% corn oil), egg and nest destruction, cervical dislocation, firearms, and CO2 asphyxiation. Persons using shotguns must use nontoxic shot. Decoys, calls, and other devices can be used to lure birds into gun range. Action agency personnel taking cormorants under the PRDO must also comply with applicable state laws and permitting requirements. This PRDO also modifies an existing Aquaculture Depredation Order to allow lethal control of cormorants at aquaculture facilities in 13 mid-continental states and lethal control by APHIS/WS or their agents at winter roost sites in those 13 states.

How is Federal Oversight Achieved?

All agencies intending to use the Public Resource Depredation Order to control cormorants must notify the Service's Regional Migratory Bird Office in writing. Agencies proposing to take more than 10% of the birds in an established breeding colony (a breeding colony from a prior year), must provide a 30 day advance notice to the Service. This notice must be accompanied by information on: (1) the location of the control activity, the public resources being impacted, (2) how many birds are likely to be taken, (3) whether other bird species nest at the site, and (4) steps planned to avoid disturbance to non-target species. After reviewing this information, the Service's Regional Director may prevent the activity from occurring if it is deemed a threat to the long-term sustainability of cormorants.

Action agencies cannot kill other bird species (or their eggs or young) that co-occur with DCCOs. Any incidental take must be reported within two business days to the appropriate Service Regional Migratory Bird Office. Action agencies must also submit annual reports that include: (1) a statement of management objectives and limiting factors for the public resources in the area in question, (2) a description of how cormorants are impacting or may impact these public resources and supporting evidence, (3) a discussion of how cormorant control efforts alleviated or are expected to alleviate resource impacts, (4) the number of birds killed, and/or number of nests in which eggs were oiled, (5) and the number of birds taken incidentally.

Authority to control cormorants under the Public Resource Depredation Order may be revoked by the Service for failure to comply with the regulations or to ensure the long term sustainability of the Great Lakes cormorant population.

Additional information is available on the Internet:

U.S. Fish and Wildlife Service/Office of Migratory Bird Management:

<http://www.fws.gov/r9mbmo/issues/cormorant/cormorant.html>

Canadian Wildlife Service:

<http://www.cciw.ca/glimr/data/cormorant-fact-sheet/intro.html>

The New York State Department of Environmental Conservation

<http://www.gw.dec.state.ny.us>

U.S. Department of Agriculture/Animal and Plant Health Inspection Service/Wildlife Services

<http://www.aphis.usda.gov/ws/nwrc/cormsymp.htm>

Vermont Department of Fish and Wildlife

<http://www.anr.state.vt.us/fw/fwhome/gull/gull.htm>

Also, information can be obtained from:

U.S. Fish and Wildlife Service
Division of Migratory Birds
300 Westgate Center Drive
Hadley, MA 01035-9589

New York State Department of Environmental Conservation
317 Washington Street
Watertown, New York 13601-3787

(413) 253-8541

(315) 785-2238