

Fourth in a series of *Feature Articles*

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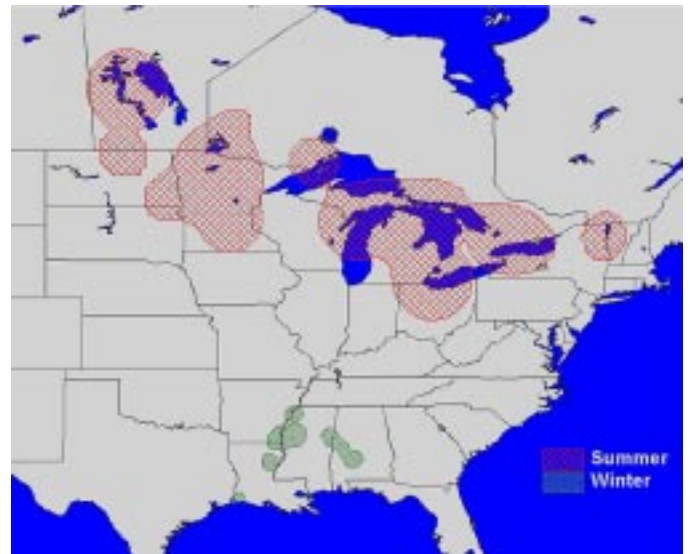
Regional and Continental Movements of Double-crested Cormorants (*Phalacrocorax auritus*) Captured Near Southeastern Aquaculture FacilitiesTommy King¹, Brian Dorr¹, Scott Werner¹, Andrew Radomski²¹USDA/APHIS/Wildlife Services, National Wildlife Research Center, Mississippi Field Station, P.O. Drawer 6099, Mississippi State University, Mississippi 39762²USDA/ Agricultural Research Service, H.K. Dupree Stuttgart National Aquaculture Research Center, P.O. Box 860, Stuttgart, Arkansas 72160

The Interior population of Double-crested Cormorants (*Phalacrocorax auritus*) has increased dramatically since the late 1970's. Within the last decade, the number of cormorants wintering in the delta region of Mississippi has nearly tripled. During the last 25 years, aquaculture production (primarily channel catfish, *Ictalurus punctatus*) in Alabama, Arkansas, Louisiana and Mississippi has also dramatically increased. Cormorants, and several other fish-eating birds, take advantage of this abundant and readily accessible food source.

The U.S. Fish and Wildlife Service is currently developing a national management plan to mitigate cormorant impacts to natural and cultural resources, including southeastern aquaculture. Prior to implementing a plan to minimize cormorant impacts to these resources, researchers must address several questions. For example, since one of the objectives of the management plan is to minimize cormorant impacts to southeastern aquaculture, will management actions be most efficient in northern breeding or southern wintering habitats?

To answer the above question, as well as others, it is necessary to identify and understand the regional and continental movements of cormorants. Therefore, we initiated a multi-year study to monitor the movement patterns of cormorants captured near catfish production areas in the southeastern United States. From October through March 1999-2001, we equipped 55 Double-crested Cormorants with 45 gram (n = 29 in 1999-2000) or 30 gram SiV (n = 26 in 2000-2001) Microwave PTT-100 transmitters in Alabama, Arkansas, Louisiana and Mississippi. Although this study is ongoing, some preliminary analyses have been completed.

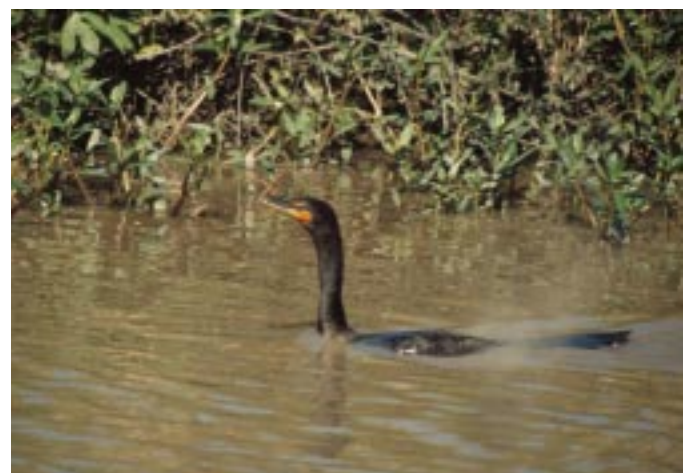
During spring and fall migration, it was not unusual for these birds to travel >400 km in 48 hr. In general, the summer ranges of these cormorants encompassed the Great Lakes and portions of Minnesota, New York, North Dakota and Vermont in the United States, and Manitoba, Ontario and Québec in Canada. The summer ranges of cormorants captured in Alabama were from the Great Lakes eastward to Lake Champlain. Cormorants captured in Arkansas, Louisiana and Mississippi spent their summers in the Great Lakes, Manitoba, Minnesota, North Dakota and Ontario. These data show that Double-crested Cormorants that winter near southeastern aquaculture have a broad summer and breeding distribution. These data also indicate that cormorants remained near areas of intensive aquaculture during the winter months. ❖



Ninety-five percent Kernel winter (green hatching) and summer (red hatching) ranges of Double-crested Cormorants captured near aquaculture facilities in the southeastern United States.



Double-crested Cormorants fitted with 30g PTTs and VHF transmitters.



Photos courtesy of Tommy King

Interactive maps of this satellite tracking study can be found at http://cofcs68.aphis.usda.gov/website/homepage/cormorant/proj_desc.htm