

# Habitat Model for Species: Double-crested Cormorant

Alpha Code: DCCO Status: Breeding

[Distribution Map](#)

[Habitat Map](#)

## Landcover Category

### **0 - Comments**

Kirsch, 1997 None - all riparian areas in KS are within 1 km of water (mainly rivers and large reservoirs).

Aderman and Hill, 1995

Hatch, 1984

Siegel-Causey and Hunt, 1986

Parmelee and Stephens, 1963

[KS GAP] Map open water (82) if > 20 ha and other habitats if adjacent to open water > 20 ha.

[Reviewer]

### **Habitat Restrictions**

### **Comments**

Nesting colonies located within 1 km of large open water areas.

Prefers roosting in flooded forested wetlands in trees surrounded by open water in Mississippi.

Typically nests on rocky islands

Likes nesting on islands on broad shoulders of cliffs.

In Kansas, uses dead branches of submerged trees in reservoirs for nesting.

Helen Hands: At Cheyenne Bottoms Wildlife Area, cormorants nest on the rim of the concrete hunting blinds, on the ground on sparsely vegetated 1- to 5-acre islands, and the small islands around the hunting blinds (personal observation).

## **04 - Pecan Floodplain Forest**

Kirsch, 1997

Aderman and Hill, 1995

Jackson and Jackson, 1995

Glahn and Sticklely, 1995

Kirsch, 1995

Lewis, 1929

Robbins and Easterla, 1992

[DCCOHD2]

[KS GAP]

Adjacent to > 20 ha water body.

## **05 - Ash-Elm-Hackberry Floodplain Forest**

Kirsch, 1997

Aderman and Hill, 1995

Jackson and Jackson, 1995

Glahn and Sticklely, 1995

Kirsch, 1995

Lewis, 1929

Robbins and Easterla, 1992

Thompson, 1981

[DCCOHD2]

Parmelee and Stephens, 1963

[KS GAP]

Adjacent to > 20 ha water body.

## **06 - Cottonwood Floodplain Forest**

Kirsch, 1997

Aderman and Hill, 1995

Jackson and Jackson, 1995

Glahn and Sticklely, 1995

Kirsch, 1995

Lewis, 1929

Robbins and Easterla, 1992

Thompson, 1981

[DCCOHD2]

Parmelee and Stephens, 1963

[KS GAP]

Adjacent to > 20 ha water body.

## **07 - Mixed Oak Floodplain**

Kirsch, 1997

Aderman and Hill, 1995

Kirsch, 1995

Lewis, 1929

[KS GAP]

Adjacent to > 20 ha water body.

## **08 - Bur Oak Floodplain**

### **Woodland**

Kirsch, 1997  
Aderman and Hill, 1995  
Jackson and Jackson, 1995  
Glahn and Stickley, 1995  
Kirsch, 1995  
Lewis, 1929  
Robbins and Easterla, 1992  
[DCCOHD2]  
[KS GAP]

Adjacent to > 20 ha water body.

## **09 - Mixed Oak Ravine**

Jackson and Jackson, 1995  
Glahn and Stickley, 1995  
Kirsch, 1995  
Robbins and Easterla, 1992  
[DCCOHD2]  
[KS GAP]

Adjacent to > 20 ha water body.

## **11 - Cottonwood Floodplain**

### **Woodland**

Kirsch, 1997  
Aderman and Hill, 1995  
Jackson and Jackson, 1995  
Glahn and Stickley, 1995  
Kirsch, 1995  
Lewis, 1929  
Robbins and Easterla, 1992  
Thompson, 1981  
[DCCOHD2]  
Parmelee and Stephens, 1963  
[KS GAP]

Adjacent to > 20 ha water body.

## **14 - Willow Shrubland**

Kirsch, 1997  
Lack, 1945  
Aderman and Hill, 1995  
Jackson and Jackson, 1995  
Vermeer, 1969  
Glahn and Stickley, 1995  
Kirsch, 1995  
Post, 1988  
Lewis, 1929  
Hatch, 1984  
Siegel-Causey and Hunt, 1986  
Robbins and Easterla, 1992  
Coleman, 1959  
[DCCOHD2]  
[KS GAP]

Adjacent to > 20 ha water body.

## **31 - Freshwater Marsh**

Kirsch, 1997  
Lack, 1945  
Jackson and Jackson, 1995  
Glahn and Stickley, 1995  
Kirsch, 1995  
Wiens, 1985  
Robbins and Easterla, 1992  
[DCCOHD2]  
[KS GAP]

Adjacent to > 20 ha water body.

## **32 - Bulrush Marsh**

Kirsch, 1997  
[DCCOHD2]  
[KS GAP]

Adjacent to > 20 ha water body.

## **33 - Cattail Marsh**

Kirsch, 1997  
Lack, 1945  
Wiens, 1985  
[DCCOHD2]  
[KS GAP]

Adjacent to > 20 ha water body.

### **36 - Cottonwood Savanna - not mapped**

Kirsch, 1997  
Lewis, 1929  
Thompson, 1981  
Parmelee and Stephens, 1963  
[KS GAP]                      Adjacent to > 20 ha water body.

### **38 - Forb Playa Lake**

Lack, 1945  
Jackson and Jackson, 1995  
Vermeer, 1969  
Hatch, 1995  
Thompson et al., 1995  
Post, 1988  
Lewis, 1929  
Esler, 1992  
Vermeer, 1973  
Robbins and Easterla, 1992  
Thompson, 1981  
[DCCOHD2]  
[KS GAP]                      Adjacent to > 20 ha water body.

### **39 - Pondweed Aquatic Wetland - not mapped**

Kirsch, 1997  
[KS GAP]                      Adjacent to > 20 ha water body.

### **82 - Water (Lake)**

Simmonds et al., 1997                      reservoir  
Jackson and Jackson, 1995  
Vermeer, 1969  
Kirsch, 1995  
Thompson et al., 1995  
Post, 1988  
Lewis, 1929  
Esler, 1992  
Vermeer, 1973  
Robbins and Easterla, 1992  
[DCCOHD2]  
Parmelee and Stephens, 1963                      reservoir  
Hatch and Weseloh, 1999  
[KS GAP]                      Use mainly "large bodies of water". Map water >20 ha.

### **82 - Water (River)**

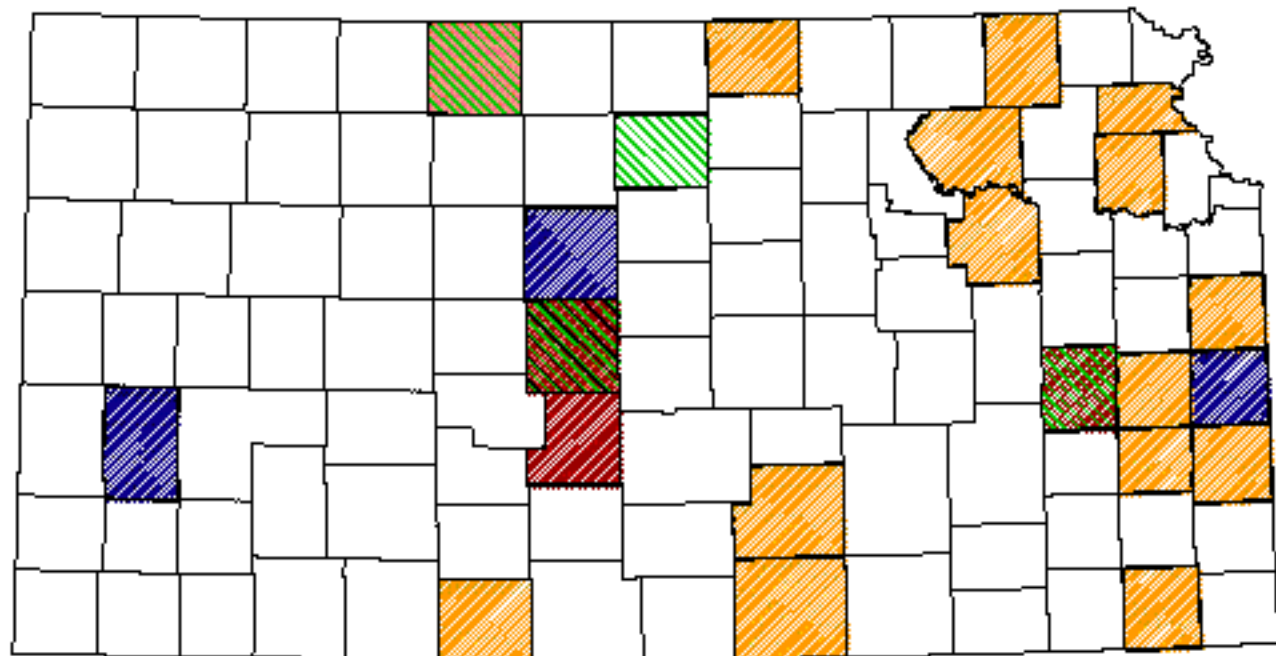
Kirsch, 1997  
Jackson and Jackson, 1995  
Kirsch, 1995  
Robbins and Easterla, 1992  
[DCCOHD2]  
Hatch and Weseloh, 1999  
[KS GAP]                      > 20 ha.

#### Reference List

1. Aderman, A. R. and E. P. Hill. 1995. Locations and numbers of Double-crested Cormorants using winter roosts in the Delta Region of Mississippi. Pages 143-151 in D. N. Nettleship and D. C. Duffy, editors. The Double-crested Cormorant: Biology, conservation and management. Colonial Waterbirds 18(Special Publication 1.)
2. Coleman, D. 1959. Double-crested Cormorant. Kansas Fish and Game 16(4):11-12.
3. Esler, D. 1992. Habitat use by piscivorous birds on a power plant cooling reservoir. Journal of Field Ornithology 63(3):241-249.
4. Glahn, J. F. and A. R. Stickley, Jr. 1995. Wintering Double-crested Cormorants in the Delta Region of Mississippi: Population levels and their impact on the catfish industry. Pages 137-142 in D. N. Nettleship and D. C. Duffy, editors. The Double-crested Cormorant: Biology, conservation and management. Colonial Waterbirds 18(Special Publication 1.)
5. Hatch, J. J. 1984. Rapid increase of Double-crested Cormorants nesting in southern New England. American Birds 38(6):984-988.
6. Hatch, J. H. 1995. Changing populations of Double-crested Cormorant. Pages 8-24 in D. N. Nettleship and D. C. Duffy, editors. The Double-crested Cormorant: Biology, conservation and management. Colonial Waterbirds 18(Special Publication 1.)
7. Hatch, J. J. and D. V. Weseloh. 1999. Double-crested Cormorant. A. Poole and F. Gill, editors. The Birds of North America. no. 441. The Birds of North America, Inc., Philadelphia, Pennsylvania, USA.


8. Jackson, J. A. and B. J. S. Jackson. 1995. The Double-crested Cormorant in the South-Central United States: Habitat and population changes of a feathered pariah. Pages 118-130 in D. N. Nettleship and D. C. Duffy, editors. The Double-crested Cormorant: Biology, conservation and management. Colonial Waterbirds 18(Special Publication 1.)
9. Kirsch, E. M. 1995. Double-crested Cormorants along the Upper Mississippi River. Pages 131-136 in D. N. Nettleship and D. C. Duffy, editors. The Double-crested Cormorant: Biology, conservation and management. Colonial Waterbirds 18(Special Publication 1.)
10. \_\_\_\_\_. 1997. Numbers and distribution of Double-crested Cormorants on the Upper Mississippi River. Colonial Waterbirds 20(2):177-184.
11. Lack, D. 1945. The ecology of closely related species with special reference to Cormorant (*Phalacrocorax carbo*) and Shag (*P. aristotelis*). Journal of Animal Ecology 14(1):12-16.
12. Lewis, H. F. 1929. The natural history of the Double-crested Cormorant. Dissertation, Cornell University, Ithaca, New York, USA.
13. Parmelee, D. F. and H. A. Stephens. 1963. A second breeding colony of the Double-crested Cormorant in Kansas. Kansas Ornithological Society Bulletin 14(4):21-22.
14. Post, W. 1988. Spread of the Double-crested Cormorant into interior of the Southeastern United States. Colonial Waterbirds 11(1):115-116.
15. Robbins, M. B. and D. A. Easterla. 1992. Birds of Missouri. University of Missouri Press, Columbia, Missouri, USA.
16. Siegel-Causey, D. and G. L. Hunt, Jr. 1986. Breeding-site selection and colony formation in Double-crested and Pelagic Cormorants. Auk 103(1):230-234.
17. Simmonds, R. L., Jr., A. V. Zale, and D. M. Leslie, Jr. 1997. Physical and biological factors affecting seasonal Double-crested Cormorant densities on Oklahoma reservoirs. Colonial Waterbirds 20(1):31-40.
18. Thompson, B. C., J. J. Campo, and R. C. Telfair II. 1995. Origin, population attributes, and management conflict resolution for Double-crested Cormorants wintering in Texas. Pages 181-188 in D. N. Nettleship and D. C. Duffy, editors. The Double-crested Cormorant: Biology, conservation and management. Colonial Waterbirds 18(Special Publication 1.)
19. Thompson, L. S. 1981. Nest-tree sharing by Herons and Cormorants in Montana. Canadian Field-Naturalist 95(3):257-260.
20. Vermeer, K. 1969. The present status of Double-crested Cormorant colonies in Manitoba. Blue Jay 27:217-220.
21. \_\_\_\_\_. 1973. Great Blue Heron and Double-crested Cormorant colonies in the Prairie Provinces. Canadian Field-Naturalist 87:427-432.
22. Wiens, J. A. 1985. Habitat selection in variable environments: shrub-steppe birds. Pages 191-226 in M. L. Cody, editor. Habitat selection in birds. Academic Press, Orlando, Florida, USA.

# Double-crested Cormorant




## Kansas Breeding Bird Atlas


 Confirmed Breeding

 Probable Breeding

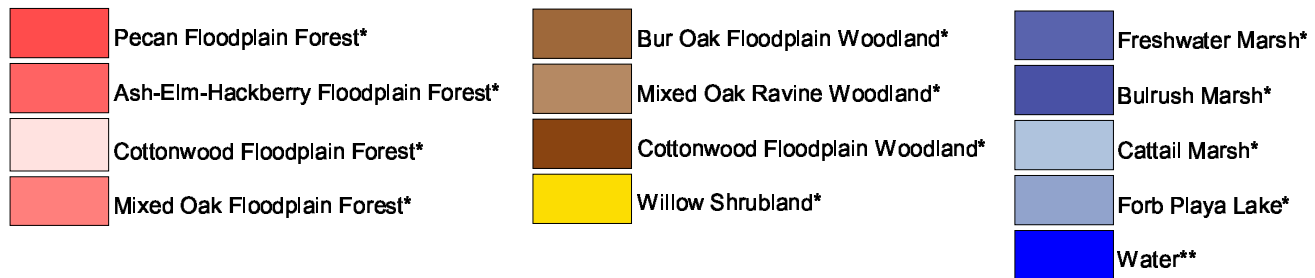
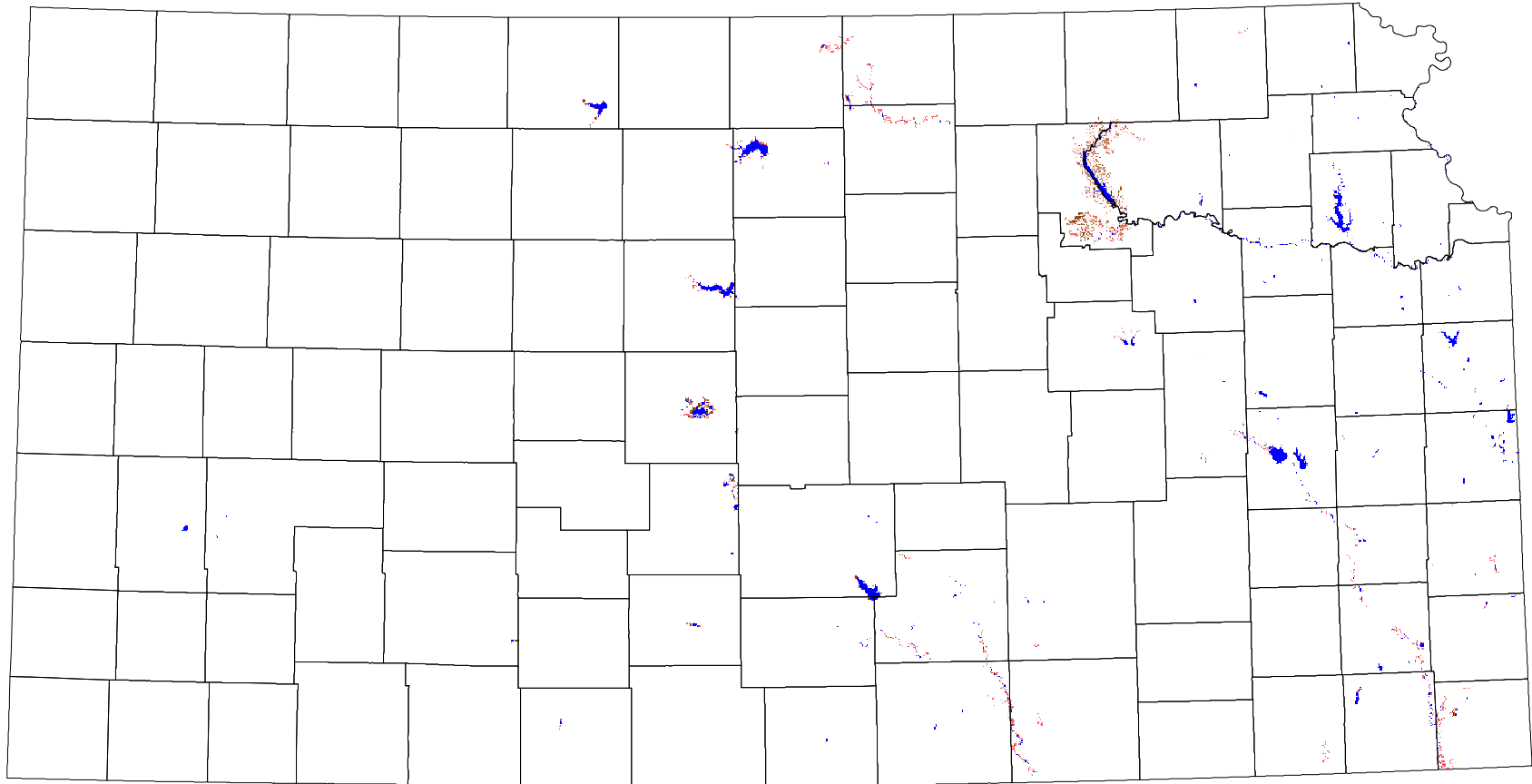
 Possible Breeding

 Breeding Bird Survey

 Birds of Kansas,  
Horned Lark

 Range from Johnsgard, 1882  
*The Birds of Nebraska*

# Double-crested Cormorant



\* adjacent to > 20 ha water body  
 \*\* >20 ha