

Habitat Model for Species: Mallard

Alpha Code: MALL Status: Resident

[Distribution Map](#)
[Habitat Map](#)

Landcover Category

0 - Comments

[KS GAP] Map habitats 17, 18, 19, 20, 22, 40, 41, and 44 if within 1620 m of habitats 26, 27, 28, 29, 30, 31, 32, 33, 38, 39, 70, or 82.

Cowardin et al., 1985

Krapu and Luna, 1991
Matulich et al., 1983

Bellrose, 1976

Mulhern et al., 1985

Greenwood et al., 1995

Klett et al., 1988

Stewart and Kantrud, 1974

14 - Willow Shrubland

Maxson and Riggs, 1996

17 - Tallgrass Prairie

[KS GAP] Within 1.6 km of selected wetland habitats.

Klett et al., 1984
Fleskes and Klaas, 1991
Klett et al., 1988

18 - Sand Prairie

[KS GAP] Within 1.6 km of selected wetland habitats.
Keith, 1961

19 - Sandstone Prairie - not mapped

[KS GAP] Within 1.6 km of selected wetland habitats.
Fleskes and Klaas, 1991

20 - Western Wheatgrass

[KS GAP] Within 1.6 km of selected wetland habitats.
Duebbert et al., 1986
Lokemoen et al., 1990

22 - Mixed Prairie

[KS GAP] Within 1.6 km of selected wetland habitats.
Duebbert et al., 1983
Duebbert et al., 1986
Kruse and Bowen, 1996
Keith, 1961

26 - Grass Playa Lake

Dwyer et al., 1979
Krapu et al., 1997
Kantrud and Stewart, 1977

Comments

used grassland dominated by snowberry. some use of shelterbelts for nests.
sewage lagoon
Summary of literature. Three life requisite needs: nesting cover, brood-rearing cover, and submersed
Prefer upland to marsh for nest sites, but the distance from the water varies greatly with the habitat.
Most studies indicate that nests are located within 100 yds. of water.
Pairs of breeding Mallards were not selective but generally used structurally different wetlands in proportion to their availability.
Most nested in road rights-of-way based on availability, and in grass based on percentage.
Also limited nesting in right-of-ways, wetlands, odd areas, and row cropland.
No correlation between fluctuations in area of wetland by type and population.

nesting

nesting in snowberry patches on an island.

27 - Salt Marsh/Prairie

Dwyer et al., 1979
Krapu et al., 1997
Kantrud and Stewart, 1977
Ruwaldt et al., 1979

28 - Spikerush Playa Lake

Dwyer et al., 1979
Krapu et al., 1997
Kantrud and Stewart, 1977
Ruwaldt et al., 1979

29 - Playa Lake

Dwyer et al., 1979
Krapu et al., 1997
Kantrud and Stewart, 1977
Rhodes, 1978

30 - Low or Wet Prairie

Dwyer et al., 1979
Krapu et al., 1997
Maxson and Riggs, 1996
Kantrud and Stewart, 1977
Ruwaldt et al., 1979

nesting

31 - Freshwater Marsh

Krapu et al., 1979
Dwyer et al., 1979
Krapu et al., 1997
Cowardin et al., 1985
Maxson and Riggs, 1996
Talent et al., 1982
Bellrose, 1976
Kantrud and Stewart, 1977
Mack and Flake, 1980
Ruwaldt et al., 1979
Keith, 1961

nesting

nesting

edge of stock pond

32 - Bulrush Marsh

Dwyer et al., 1979
Krapu et al., 1997
Maxson and Riggs, 1996
Talent et al., 1982
Kantrud and Stewart, 1977
Mack and Flake, 1980
Ruwaldt et al., 1979

nesting

edge of stock pond

33 - Cattail Marsh

Krapu et al., 1979
Dwyer et al., 1979
Krapu et al., 1997
Cowardin et al., 1985
Krapu and Luna, 1991
Maxson and Riggs, 1996
Talent et al., 1982
Bellrose, 1976
Kantrud and Stewart, 1977
Mack and Flake, 1980
Ruwaldt et al., 1979
Keith, 1961

nesting

brood habitat

nesting

edge of stock pond

38 - Forb Playa Lake

Dwyer et al., 1979
Krapu et al., 1997
Kantrud and Stewart, 1977

39 - Pondweed Aquatic Wetland - not mapped

Dwyer et al., 1979
Krapu et al., 1997
Kantrud and Stewart, 1977
Ruwaldt et al., 1979

40 - Non-native Grassland

[KS GAP] Within 1.6 km of selected wetland habitats.
Cowardin et al., 1985 The mean distance of mallard nests from water was 424 ft.
Klett et al., 1984
Willms and Crawford, 1989

Fleskes and Klaas, 1991
Duebbert and Lokemoen, 1976

Klett et al., 1988
Oetting and Cassel, 1971
Lokemoen et al., 1990
Krapu et al., 1970

41 - CRP

[KS GAP] Within 1.6 km of selected wetland habitats.
Klett et al., 1984
Luttschwager et al., 1994
Kantrud, 1993

44 - Cultivated Land

[KS GAP] Within 1.6 km of selected wetland habitats.
Dwyer et al., 1979

Cowardin et al., 1985
Duebbert and Kantrud, 1987
Higgins, 1977

Lokemoen et al., 1990

70 - Weedy Marsh

Krapu et al., 1979
Dwyer et al., 1979
Krapu et al., 1997
Maxson and Riggs, 1996
Bellrose, 1976
Kantrud and Stewart, 1977
Mack and Flake, 1980
Keith, 1961

82 - Water (Lake)

Dwyer et al., 1979
Krapu et al., 1997
Bellrose, 1976
Mack and Flake, 1980
Ruwaldt et al., 1979

82 - Water (River)

Krapu and Luna, 1991
Ruwaldt et al., 1979

stock ponds and dugouts

road right-of-way

preferred tall and dense forbs, avoided short and sparse grass

Avg. distance of nest to a wetland was 485 m, max. 1200 m

highway right-of-way

bromegrass

used wheat stubble or fallow cropland during the breeding season 23% of daytime hours (rest of the time was in wetlands).

stubble and alfalfa.

no-till winter wheat.

nests found in mulched stubble, standing stubble, and growing small grain.

alfalfa or wheat stubble

nesting

nesting

edge of stock pond

stock pond - limit size?

stock ponds and dugouts

river channel, brood habitat

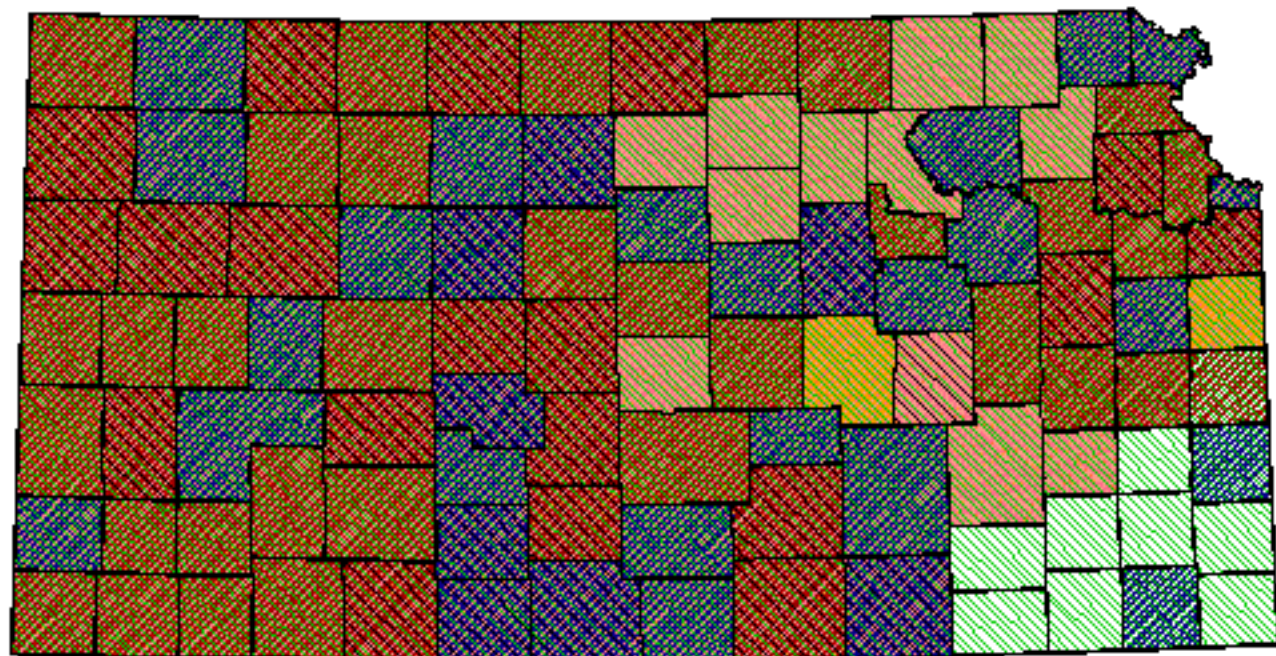
intermittent and permanent streams.

Reference List


1. Bellrose, F. C. 1976. Ducks, Geese & Swans of North America. Second edition. Stackpole Books, Harrisburg, Pennsylvania, USA.
2. Cowardin, L. M., D. S. Gilmer, and C. W. Shaiffer. 1985. Mallard recruitment in the agricultural environment of North Dakota. Wildlife Monographs 92:1-37.
3. Duebbert, H. F. and H. A. Kantrud. 1987. Use of no-till winter wheat by nesting ducks in North Dakota. Journal of Soil and Water Conservation 42(1):50-53.
4. Duebbert, H. F. and J. T. Lokemoen. 1976. Duck nesting in fields of undisturbed grass-legume cover. Journal of Wildlife Management 40(1):39-49.


5. Duebbert, H. F., J. T. Lokemoen, and D. E. Sharp. 1983. Concentrated nesting of Mallards and Gadwalls on Miller Lake Island, North Dakota. *Journal of Wildlife Management* 47(3):729-740.
6. _____. 1986. Nest sites of ducks in grazed mixed-grass prairie in North Dakota. *Prairie Naturalist* 18(2):99-108.
7. Dwyer, T. J., G. L. Krapu, and D. M. Janke. 1979. Use of prairie pothole habitat by breeding Mallards. *Journal of Wildlife Management* 43(2):526-531.
8. Fleskes, J. P. and E. E. Klaas. 1991. Dabbling duck recruitment in relation to habitat and predators at Union Slough National Wildlife Refuge, Iowa. Fish and Wildlife Technical Report 32. U.S. Fish and Wildlife Service, Washington, D.C., USA.
9. Greenwood, R. J., A. B. Sargeant, D. H. Johnson, L. M. Cowardin, and T. L. Shaffer. 1995. Factors associated with duck nest success in the prairie pothole region of Canada. *Wildlife Monographs* 128:1-57.
10. Higgins, K. F. 1977. Duck nesting in intensively farmed areas of North Dakota. *Journal of Wildlife Management* 41(2):232-242.
11. Kantrud, H. A. 1993. Duck nest success on Conservation Reserve Program land in the prairie pothole region. *Journal of Soil and Water Conservation* 48(3):238-242.
12. Kantrud, H. A. and R. E. Stewart. 1977. Use of natural basin wetlands by breeding waterfowl in North Dakota. *Journal of Wildlife Management* 41(2):243-253.
13. Keith, L. B. 1961. A study of waterfowl ecology on small impoundments in southeastern Alberta. *Wildlife Monographs* 6:1-88.
14. Klett, A. T., H. F. Duebbert, and G. L. Heismeyer. 1984. Use of seeded native grasses as nesting cover by ducks. *Wildlife Society Bulletin* 12(2):134-138.
15. Klett, A. T., T. L. Shaffer, and D. H. Johnson. 1988. Duck nest success in the prairie pothole region. *Journal of Wildlife Management* 52(3):431-440.
16. Krapu, G. L., R. J. Greenwood, C. P. Dwyer, K. M. Kraft, and L. M. Cowardin. 1997. Wetland use, settling patterns, and recruitment in Mallards. *Journal of Wildlife Management* 61(3):736-746.
17. Krapu, G. L. and C. R. Luna. 1991. Habitat use, survival, and causes of mortality among Mallard broods hatched near the James River in North Dakota. *Prairie Naturalist* 23(4):213-222.
18. Krapu, G. L., D. R. Parsons, and M. W. Weller. 1970. Waterfowl in relation to land use and water levels on the Spring Run area. *Iowa State Journal of Science* 44(4):437-452.
19. Krapu, G. L., L. G. Talent, and T. J. Dwyer. 1979. Marsh nesting by Mallards. *Wildlife Society Bulletin* 7(2):104-110.
20. Kruse, A. D. and B. S. Bowen. 1996. Effects of grazing and burning on densities and habitats of breeding ducks in North Dakota. *Journal of Wildlife Management* 60(2):233-246.
21. Lokemoen, J. T., H. F. Duebbert, and D. E. Sharp. 1990. Homing and reproductive habits of Mallards, Gadwalls, and Blue-winged Teal. *Wildlife Monographs* 106:1-28.
22. Luttschwager, K. A., K. F. Higgins, and J. A. Jenks. 1994. Effects of emergency haying on duck nesting in Conservation Reserve Program fields, South Dakota. *Wildlife Society Bulletin* 22:403-408.
23. Mack, G. D. and L. D. Flake. 1980. Habitat relationships of waterfowl broods on South Dakota stock ponds. *Journal of Wildlife Management* 44(3):695-700.
24. Matulich, S. C., J. E. Hanson, and I. Lines. 1983. A breeding Mallard (*Anas platyrhynchos*) habitat suitability model. State of Washington Water Research Center, Pullman, Washington, USA.
25. Maxson, S. J. and M. R. Riggs. 1996. Habitat use and nest success of overwater nesting ducks in westcentral Minnesota. *Journal of Wildlife Management* 60(1):108-119.
26. Mulhern, J. H., T. D. Nudds, and B. R. Neal. 1985. Wetland selection by Mallards and Blue-winged Teal. *Wilson Bulletin* 97(4):473-485.
27. Oetting, R. B. and J. F. Cassel. 1971. Waterfowl nesting on interstate highway right-of-way in North Dakota. *Journal of Wildlife Management* 35:774-781.
28. Rhodes, M. J. 1978. Habitat preferences of breeding waterfowl on the Texas high plains. Thesis, Texas Tech University, Lubbock, Texas, USA.
29. Ruwaldt, J. J., Jr., L. D. Flake, and J. M. Gates. 1979. Waterfowl pair use of natural and man-made wetlands in South Dakota. *Journal of Wildlife Management* 43(2):375-383.
30. Stewart, R. E. and H. A. Kantrud. 1974. Breeding waterfowl populations in the Prairie Pothole Region of North Dakota. *Condor* 76:70-79.
31. Talent, L. G., G. L. Krapu, and R. L. Jarvis. 1982. Habitat use by mallard broods in south central North Dakota. *Journal of Wildlife Management* 46(3):629-635.
32. Willms, M. A. and R. D. Crawford. 1989. Use of earthen islands by nesting ducks in North Dakota. *Journal of Wildlife Management* 53(2):411-417.


Mallard





Kansas Breeding Bird Atlas


 Confirmed Breeding

 Probable Breeding

 Possible Breeding

 Breeding Bird Survey

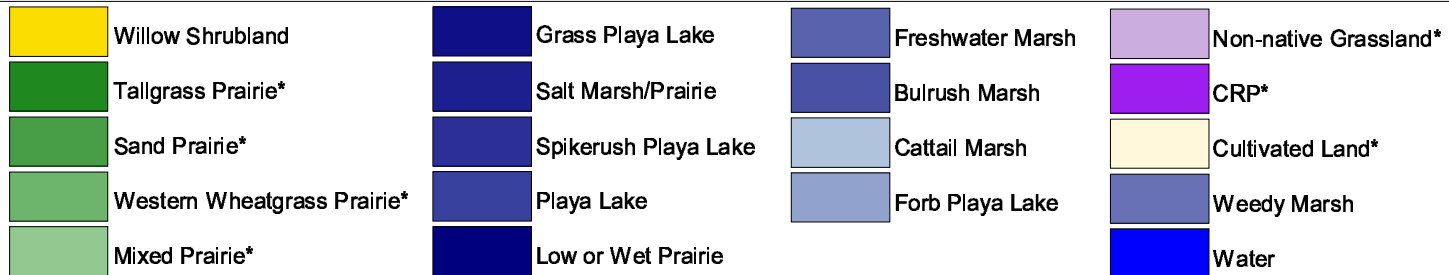
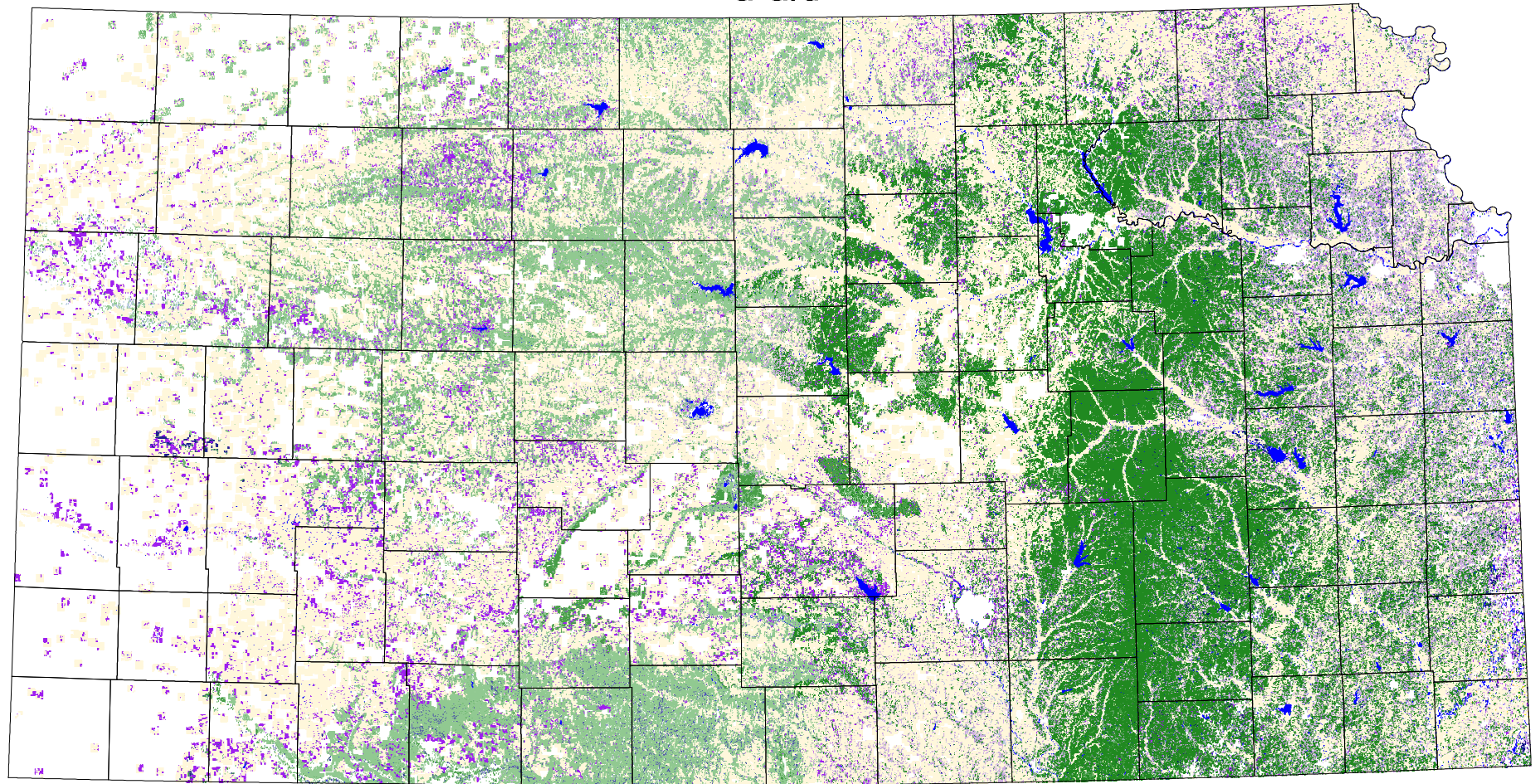
 *Birds of Kansas,*
Horned Lark

 Range from Johnsgard, 1998
The Birds of Nebraska

Habitat

All shaded counties will be included in the possible distribution of the species.

Mallard



* if within 1620 m of other mapped habitats