Dabbling Ducks

ASSESSING HABITAT QUALITY FOR PRIORITY WILDLIFE SPECIES IN COLORADO WETLANDS



Several species are included in the Dabbling Duck guild. Top row from left: American wigeon (*Anas americana*), blue-winged teal (*A. discors*), cinnamon teal. (*A. cyanoptera*). Second row from left: gadwall (*A. strepera*), green-winged teal (*A. crecca*), mallard (*A. platyrhynchos*). Bottom: northern pintail (*A. acuta*).

Species Description

Preferred Habitats

The most important wetland habitats for dabbling ducks during spring and fall migration include beaver ponds, emergent marshes, warm water sloughs, moist soil units, wet meadows, and herbaceous riparian wetlands. During winter, most small wetlands freeze and ducks congregate in deeper water, such as open river channels, warm water sloughs, reservoirs, and deep gravel pits, or on open sandbars. During the breeding season, most dabbling ducks nest in upland vegetation.

Diet

Most dabbling ducks consume far more invertebrates during the breeding season compared with other times of year. During non-breeding seasons, the diet varies according to species but includes seeds, aquatic vegetation, tubers, and crop grains.

Conservation Status

The population status differs among species. All ducks in this guild are federally protected game birds in the United States, Canada, and Mexico. Colorado Parks and Wildlife designated these ducks as priority species because they provide valuable hunting and viewing opportunities.

Species Distribution

Range

The ducks in this guild are widely distributed. With the exception of cinnamon teal, all have a distribution beyond the Americas. They are found throughout most of Colorado during at least part of the year. In general, outside of winter, the greatest concentrations include the San Luis Valley, North Park, and the Front Range within the South Platte River Basin.

Preferred Habitat Conditions

Dominant vegetation	sedges, rushes, grasses, forbs, and aquatic vegetation
Density of plants desirable to ducks	abundant (desireable plants are often seed bearing species such as pondweeds, dock, sedges, and some grasses)
Emergent vegetation within open water	21–50% for diurnal use 61–80% for nocturnal use
Interspersion	complex patterns that maximize interface between water and vegetation
Landscape context	proximity to other wetlands on the landscape
Size of habitat	>20 acres for wet meadows >2 acres for other wetlands excluding reservoirs
Submergent vegetation	31-60%
Water depth (predominant)	4–12 inches



This fact sheet contains easy-to-use guidelines for understanding habitat needs of Colorado Parks and Wildlife priority wetland-dependent wildlife. A number of practical steps can be taken to improve habitat for dabbling ducks.

Hydrology

- Maintain water depths 4–12 inches.
- Time drawdowns in summer to coincide with desired vegetation.
- Drawdown gradually for the greatest diversity of vegetation.
- Re-flood in late summer or early fall for fall migrants.

Vegetation

- Consider establishing submerged aquatic vegetation.
- Consider revegetating with native plants during drawdown if devoid of vegetation for long periods.
- Use disturbance techniques to set back succession.
- Control undesirable vegetation, especially robust plants, exotics, and woody vegetation.
- Control woody vegetation at young age.
- Create 50:50 interspersion or hemimarsh conditions (1:1 open water to emergent vegetation).
- Manage for diversity of native plants.
- Use drawdowns to accelerate decomposition.

Land Use / Other

• Limit time of grazing and maintain appropriate stocking rate; where possible, protect wetland with fencing.

Conservation

- Minimize disturbance by humans.
- Control for burrowing mammals only if needed to maintain integrity of levees or to avoid excessive vegetation removal or obstructions.
- Control fish that cause turbidity, e.g., carp.
- Provide diversity through wetland complexes on landscape.



Acknowledgements

Brian Sullivan (Colorado Parks and Wildlife) reviewed an earlier version and provided input on preferred habitat conditions.

Suggested Reading and Citations

- Austin, J. E., and M. R. Miller. 1995. Northern pintail (*Anas acuta*). The Birds of North America No. 163. Cornell Lab of Ornithology.
- Drilling, N., R. Titman, and F. Mckinney. 2002. Mallard (Anas platyrhynchos). The Birds of North America No. 658. Cornell Lab of Ornithology.
- Gammonley, J. H. 1996. Cinnamon teal (*Anas cyanoptera*). The Birds of North America No. 209. Cornell Lab of Ornithology.
- Johnson, K. 1995. Green-winged teal (*Anas crecca*). The Birds of North America No. 193. Cornell Lab of Ornithology.
- Leschack, C. R., S. K. McKnight, and G. R. Hepp. 1997. Gadwall (*Anas strepera*). The Birds of North America No. 283. Cornell Lab of Ornithology.
- Mowbray, T. 1999. American wigeon (*Anas americana*). The Birds of North America No. 401. Cornell Lab of Ornithology.
- Naugle, D. E., R. R. Johnson, M. E. Estey, and K. F. Higgins. 2001. A landscape approach to conserving wetland bird habitat in the prairie pothole region of eastern South Dakota. *Wetlands* 21:1-17.
- Rohwer, F. C., W. P. Johnson, and E. R. Loos. 2002. Blue-winged teal (*Anas discors*). The Birds of North America No. 625. Cornell Lab of Ornithology.



Habitat Scorecard for Dabbling Ducks (v. Jan 2016)

Assessment of habitat before and after restoration or management actions

Project Name:	Date(s) of Assessment:

<u>Instructions</u>: Select appropriate checklist: (1) <u>Emergent Wetlands</u>, <u>Playas</u>, <u>and Impoundments</u>, (2) <u>Wet Meadows</u>, or (3) <u>Sandbars</u>. Enter <u>one</u> value that best describes migratory (spring/fall) conditions of each habitat variable, using the numbers in the value column. Habitat variables are in shaded boxes; ranges of condition are directly below each variable. If condition is outside range or is not described, enter a zero.

Emergent Wetlands, Playas, and Impoundments

Key habitat variable and conditions			Value	Before	After
Dominant vegetation					
Sedges, rushes, grasses, forbs, and aquatic vegetation			18.7		
Robust wetland herbs (cattail, bulrush, reedgrass, etc.)			12.5		
Open willows / shrubs, Closed canopy trees (>50% cover)			6.2		
Percent of emergent vegetation within water			·		
21 – 50%			18.7		
5 – 20%			12.5		
50 – 100%			6.2		
Predominant depth of water				<u> </u>	<u> </u>
4 – 12 inches			18.7		
>12 – 25 inches			12.5		
>25 – 40 inches			6.2		
Percent submergent vegetation					
>30 - 60%			17.8		
>10 - 30%			11.8		
0 – 10%			5.9		
Interspersion					
C or D			15.0		
В			10.0		
A or E			5.0		
Interspersion patterns refer to the above diagram (stippled = water, solid = vegetation)	B	\mathcal{C}	D	E	
Size of habitat					
>2 acres			11.1		
>0.5 – 2 acres			7.5		
0.25 – 0.5 acres			3.7		

Habitat Scorecard for Dabbling Ducks (v. Jan 2016)

Assessment of habitat before and after restoration or management actions

Project Name:	Date(s) of Assessment:
,	

<u>Instructions</u>: Select appropriate checklist: (1) <u>Emergent Wetlands</u>, <u>Playas</u>, <u>and Impoundments</u>, (2) <u>Wet Meadows</u>, or (3) <u>Sandbars</u>. Enter <u>one</u> value that best describes migratory (spring/fall) conditions of each habitat variable, using the numbers in the value column. Habitat variables are in shaded boxes; ranges of condition are directly below each variable. If condition is outside range or is not described, enter a zero.

Wet Meadows (natural or irrigation-influenced)

Key habitat variable and conditions	Value	Before	After
Dominant vegetation			
Sedges, rushes, grasses, forbs, and aquatic vegetation	28.2		
Robust wetland herbs (cattail, bulrush, reedgrass, etc.)	18.8		
Open willows / shrubs, Closed canopy trees (>50% cover)	9.4		
Percent of herbaceous vegetation that is too dense for a duck to move through			
0 – 20%	28.2		
>20 - 50%	18.8		
>50 – 80%	9.4		
Height of herbaceous vegetation			
8 – 20 inches	26.7		
>20 – 80 inches	17.8		
>80 inches	8.9		
Size of habitat			
>20 acres	16.9		
>5 – 20 acres	11.3		
2.5 – 5 acres	5.6		

Habitat Scorecard for Dabbling Ducks (v. Jan 2016)

Assessment of habitat before and after restoration or management actions

Project Name:	Date(s) of Assessment:
,	

<u>Instructions</u>: Select appropriate checklist: (1) <u>Emergent Wetlands</u>, <u>Playas</u>, <u>and Impoundments</u>, (2) <u>Wet Meadows</u>, or (3) <u>Sandbars</u>. Enter <u>one</u> value that best describes migratory (spring/fall) conditions of each habitat variable, using the numbers in the value column. Habitat variables are in shaded boxes; ranges of condition are directly below each variable. If condition is outside range or is not described, enter a zero.

Sandbars

Key habitat variable and conditions	Value	Before	After
Dominant vegetation			
Sedges, rushes, grasses, forbs, and aquatic vegetation	25.6		
Robust wetland herbs (cattail, bulrush, reedgrass, etc.)	17.1		
Open willows / shrubs, Closed canopy trees (>50% cover)	8.5		
Percent of herbaceous vegetation that is too dense for a duck to move throug	h		
0 – 20%	25.6		
>20 - 50%	17.1		
>50 - 80%	8.5		
Percent of herbaceous vegetation that is easy for a duck to move through			
0 – 30%	25.6		
>30 - 60%	17.1		
>60 – 100%	8.5		
Percent cover of woody vegetation >6.6 feet (2 meters) in height			
0 – 20%	23.2		
>20 – 40%	15.4		
>40 – 100%	7.7		