

Habitat Conservation for Mottled Ducks: What You Can Do to Help

Introduction

Threats to coastal habitats and indications of a potentially declining population have raised concern for Western Gulf Coast (WGC) mottled ducks. In response, Gulf Coast Joint Venture (GCJV) partners strongly encourage public and private land managers within the WGC region of Texas, Louisiana, Mississippi, and Alabama to implement several priority management actions to address habitat needs of mottled ducks.

The highest priority for increasing WGC mottled duck populations is to increase the percentage of hatched nests and of young individuals surviving to flight stage (i.e., 8-9 weeks). Moderate priorities are to increase the annual percentage of hens nesting and to improve the survival of flightless adults undergoing late summer wing molt.

Agricultural Settings

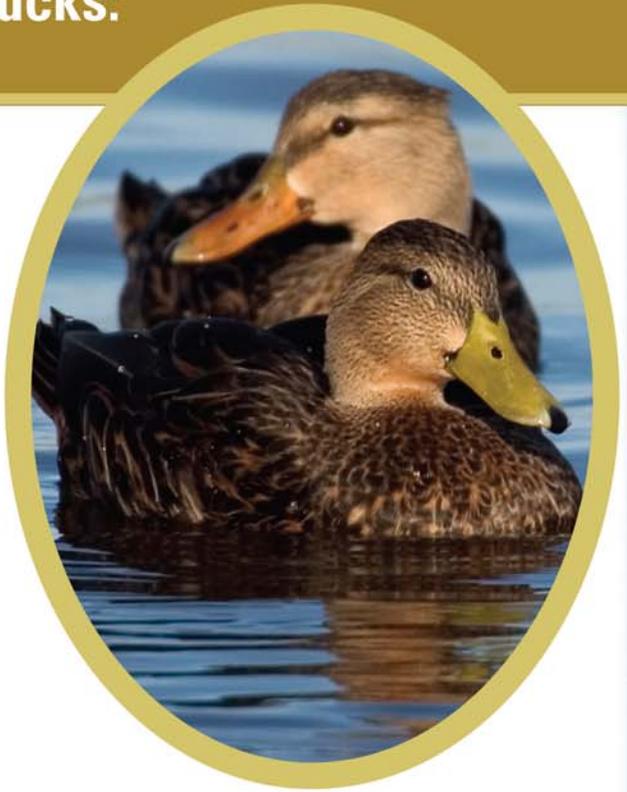
In agricultural settings, recommendations include maintaining or developing (1) a grassland component for nesting, (2) a nearby (≤ 1 mile) wetland component for rearing young mottled ducks, and (3) a nearby (0.25-1 mile) wetland component to encourage breeding activity.

Grasslands

- permanent pasture or other grasslands, relatively free of shrubs or trees, with a moderately dense and abundant species mix of native grasses with abundant plant litter.
- blocks of at least 40 acres of grasslands with perimeter-to-area ratios as small as possible; blocks of 500-1000 acres are ideal.
- grassland islands of 40-150 acres surrounded by water.
- sustained removal of mammalian predators (i.e., raccoons, foxes, coyotes, skunks, and mink) in areas known to have high densities of nests, particularly in situations where predator replacement will be reduced by barriers (e.g., islands).

Brood wetlands

- about 500 acres of actively cultivated ricefields flooded throughout the growing season.
- natural wetlands ≤ 6 inches deep (or with dense submersed aquatic vegetation) with short emergent vegetation not exceeding 50% of pond coverage and some more dense patches of vegetative escape cover.
- minimized interior borrow and other deepwater areas where water-borne predators, such as snapping turtles and alligators, reside.
- grassland nesting habitat connectivity with suitable vegetative cover and minimal deep water.
- surface water available at least mid-April through July.



Breeding pair wetlands

- flooded, harvested ricefields with 25-50% coverage of above-water vegetative structure or other types of crawfish impoundments with similar characteristics.
- shallow, natural wetlands (or with dense submersed aquatic vegetation) with short emergent vegetation not exceeding 50% of pond coverage.
- surface water available February through March.

- grassland nesting habitat connectivity with suitable vegetative cover and minimal deep water.
- surface water available at least mid-April through July.

Breeding pair wetlands

- shallow, natural wetlands (or with dense submersed aquatic vegetation) with short emergent vegetation not exceeding 50% of pond coverage.
- surface water available February through March.

Molting wetlands

- transitional (degrading or recovering) vegetation in slightly brackish to fresh marsh with 6-18 inches of water available mid-July through mid-September.
- very low, herbaceous vegetation typical of marshes subjected to devegetation by large populations of nutria or muskrat (i.e., “eat-outs”) with some dense emergent escape cover nearby.
- minimized interior borrow and other deepwater areas where waterborne predators, such as alligators, reside.

Some hypothetical configurations of habitats that employ these guidelines to benefit mottled ducks are depicted on the following pages:

Coastal Marsh Settings

In coastal marsh settings, recommendations include maintaining or developing (1) a grassland component for nesting, (2) a nearby (<0.5 mile) wetland component for rearing young mottled ducks, (3) a nearby (0.25-1 mile) wetland component to encourage breeding activity, and (4) a wetland component to provide adult molting habitat.

Grasslands

- high, well-drained brackish or saline prairie ridges or other high marsh sites relatively free of shrubs or trees and within fresh/intermediate marsh complexes.
- early-successional deltaic islands near river mouths.
- blocks of at least 40 acres of grasslands with perimeter-to-area ratios as small as possible; blocks of 500-1000 acres are ideal.
- islands of 40-150 acres of native grasslands surrounded by water.
- sustained removal of mammalian predators (i.e., raccoons, foxes, coyotes, skunks, and mink) in areas with known high densities of nests, particularly in situations where predator replacement would be reduced by barriers (e.g., islands).

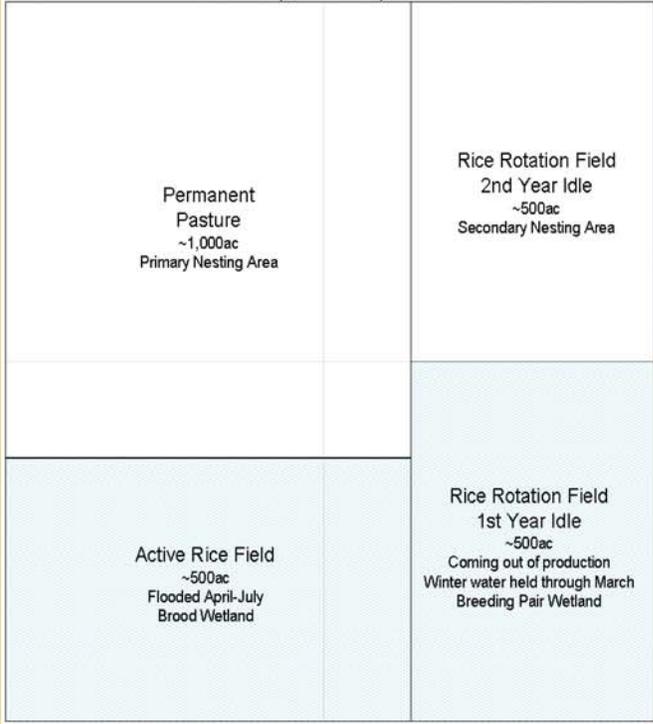
Brood wetlands

- natural wetlands ≤ 6 inches deep (or with dense submersed aquatic vegetation), ≤ 6 ppt salinity, short emergent vegetation not exceeding 50% of pond coverage, and some dense patches of vegetative escape cover.
- minimized interior borrow and other deepwater areas where water-borne predators, such as snapping turtles and alligators, reside.





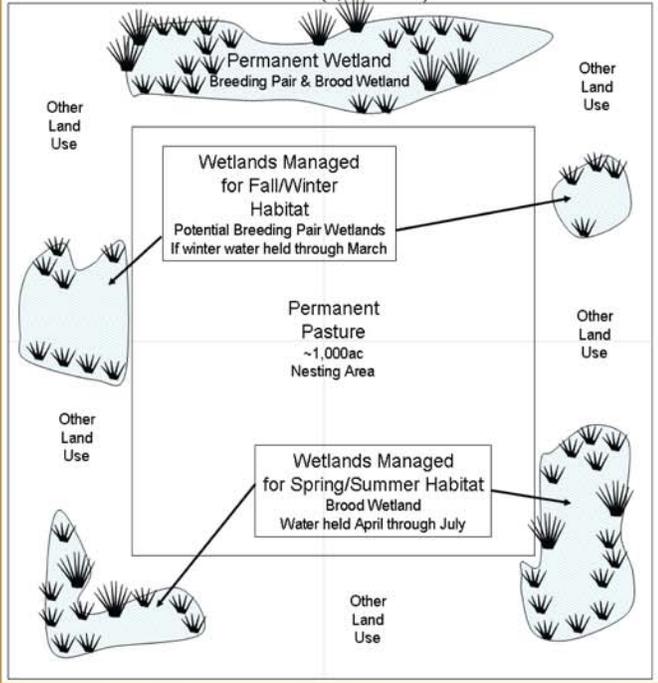
Agricultural Land Example 1 Large Scale with Active Rice Cultivation (2,560 acres)



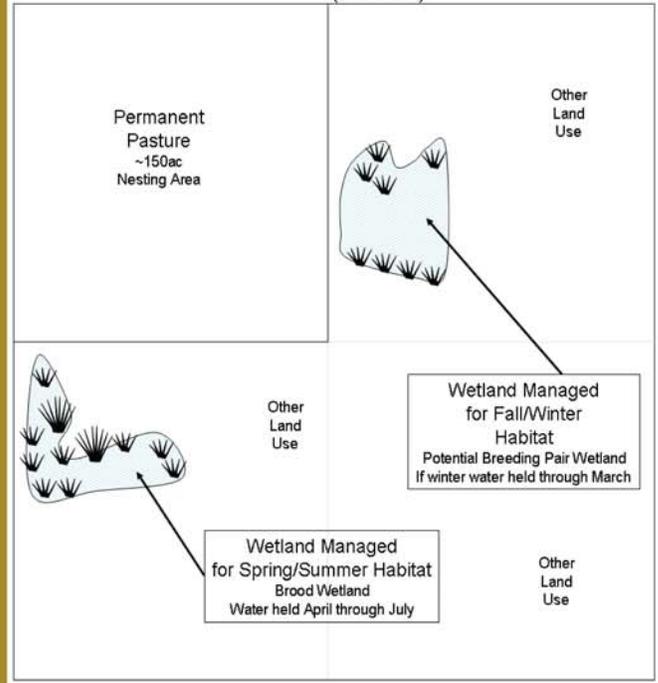
LEGEND

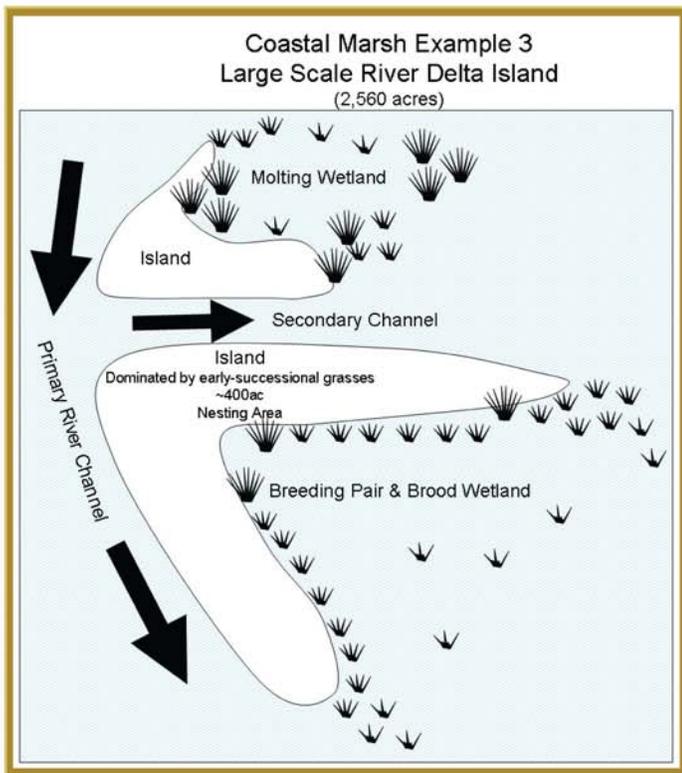
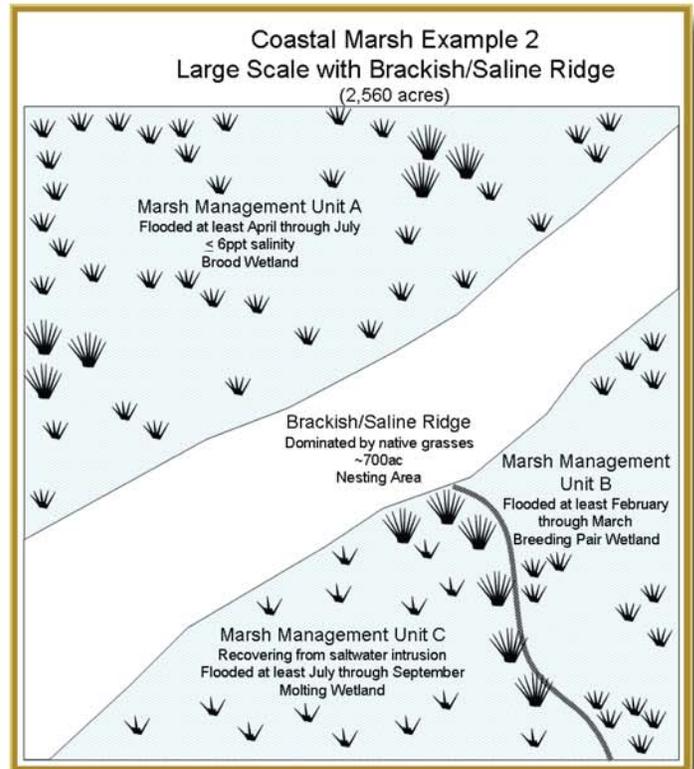
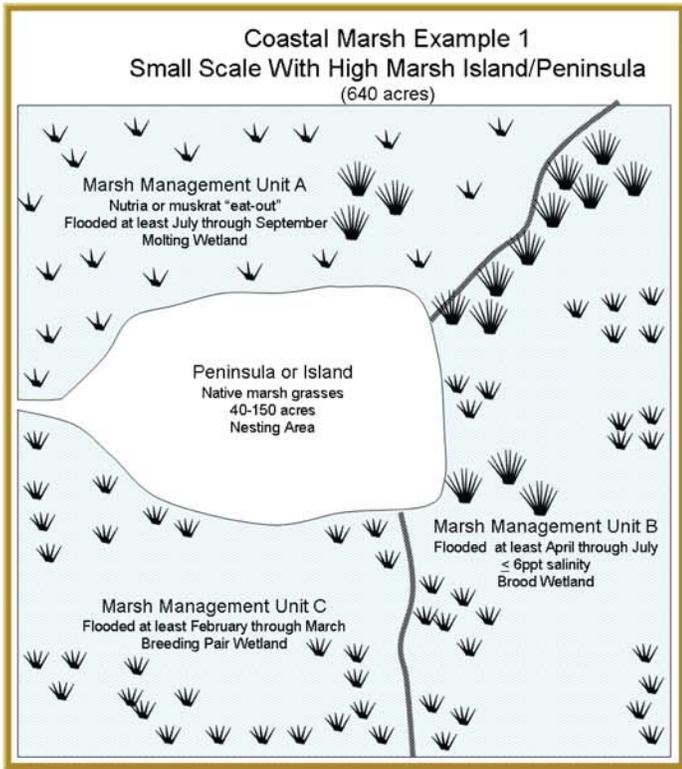
-  Shallow wetland or agricultural land surface water without deep interior borrow areas
-  Levee
-  Dense vegetative cover
-  Sparsely or moderately dense short vegetation
-  Very short and sparse vegetation typical of early plant succession or nutria/muskrat "eat-outs"
-  River channel

Agricultural Land Example 2 Large Scale without Active Rice Cultivation (2,560 acres)



Agricultural Land Example 3 Small Scale without Active Rice Cultivation (640 acres)





Gulf Coast Joint Venture (GCJV) partners are also concerned about evidence indicating a threat to the genetic integrity of WGC mottled ducks from nonmigratory (i.e., feral, released, or domesticated) mallards. Because wild, free-flying mallards typically breed well outside the mottled duck range, natural cross-breeding between the two species is extremely rare; however, releases of pen-raised mallards within the range of the mottled duck may be contributing to recent observations of mottled duck-mallard hybrids. Genetic introgression from introduced mallards has become a major threat to mottled ducks in Florida and other waterfowl species in several locations worldwide. In recognition of this threat, GCJV partners strongly discourage the release of pen-raised mallards within the range of WGC mottled ducks and in habitat developments intended to benefit them.

For more information about managing lands to benefit mottled ducks, please contact:

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