Photo by Jimmy M. Juhl

DUCKS AND MID-COAST RICE

Article by **NATE SKINNER**
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"Actions and water management processes upstream are affecting the natural downstream flow of water, which could eventually lead to the destruction of one of the largest wintering habitats for waterfowl in Texas." — Nate Skinner

The peacefulness of the predawn silence didn't last long. The decoys were set, and we huddled in the blind, awaiting the grey light of legal shooting time, as wings began to cut the air like a knife. They started far off at first, barely heard above the panting of the anxious retriever by my side. Soon though, there were more, and then more. The whistling of feathers roared like jet engines, through the calm, cool air of the black sky. Although the sun was beneath the horizon, the prairie began to come to life.

"We are covered up," said hunting guide and operator of Red Bluff Prairie Hunting Club, Mike Lanier, as he reached for a call hanging from his neck. He let out a few soft chuckles, and it was as if the reeds of that call spoke fluent "duck." Gadwalls and mottled ducks answered immediately, as widgeon and pintails whistled over head.

Hearts pounded, as shells were loaded into shotguns. This was the kind of morning a waterfowl hunter dreams about, and it was the reason we all duck hunted. The anticipation was a better jump-starter than any cup of coffee – it was the true reason we woke up at the wee hours of the morning to sit out in the cold amongst the mud and muck of flooded rice stubble.

This simple grain field was the reason everything before us was taking place – it was the epitome of a duck's winter wonderland. Texas mid-coast rice prairies have long been a tradition of blood, sweat and ducks galore. As important as this habitat is to the migrating waterfowl that call it home each winter, the future of our coastal rice prairies is unsecured. With this uncertainty comes the daunting question of, "Where will the ducks go?" The answer to that question may be unknown, but one thing is for sure – without healthy and productive rice prairies along the middle Texas coast, scenes like the one described will quickly become faint memories of the past.

The Importance of Texas Mid-Coast Rice

According to Ducks Unlimited's Kirby Brown, the Gulf Coast winters 14 million ducks and 1.5 million geese, representing around 22 percent of the breeding population. Within this Gulf Coast region of North America, the Texas Mid-Coast Rice Prairie Complex is the last intact rice prairie and wetlands complex of its size in the state. The majority of this complex is composed of

Photo by Nate Skinner

rice prairies within Colorado, Wharton and Matagorda counties. These prairies and wetlands support over 200 species of wildlife and are critically important to waterfowl.

"These rice lands account for 66 percent of the dietary demands and energy supply for all waterfowl wintering on the Texas mid-coast," says Brown. "Thousands of ducks depend on these rice prairies for food and habitat each winter."

Texas mid-coast rice prairies provide a winter home and food source to many different species of ducks. They also winter large quantities of certain species. They include pintails, green winged teal and mottled ducks.

"Fourteen percent of the entire North American population of pintails winter on mid-coast rice prairies," informs Brown, "along with 16 percent of all North American green winged teal and a quarter of the North American Population of mottled ducks."

The Water Crisis

The driving force behind mid-coast rice prairies and their production is a resource that humans have been fighting over for decades – water. Rice is a very moisture dependent crop that must have ample of amounts of water to mature and produce grain.

Mike Lanier is the owner and operator as well as a waterfowl hunting guide for Red

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Bluff Prairie Hunting Club in Garwood and is a lifelong resident of the area. Lanier has been hunting ducks and geese on the Garwood Prairie for many years and has farmed rice in the area his entire life as well.

According to Lanier, water plays the most important role in a successful rice crop.

"It is crucial. Without water, there is no rice," he says. "Rice is typically planted in the spring, around mid March in moist soil. Once it has matured and grown to about ten inches tall, the crop is flooded with three to four inches of water, for several weeks, until it is drained and then harvested during late summer, usually mid July to early August." he explains. "If a rice field is not flooded, it will not produce a crop."

The main water source for mid-coast rice is the Colorado River, specifically the section below Longhorn Dam in Austin, which makes up the lower river basin. This downstream flow of water below Longhorn Dam is managed by the Lower Colorado River Authority (LCRA).

Above Longhorn Dam, the Colorado River has been dammed to form a chain of seven lakes known as the Highland Lakes. These include Lake Buchanan, Inks Lake, Lake LBJ, Lake Marble Falls, Lake Travis, Lake Austin, and Lady Bird Lake. This stretch of the Colorado River that feeds the Highland Lakes supplies water to much of central Texas and is home to many, high-

WHY IS RICE IMPORTANT FOR DUCKS?

Location: In the U.S., rice production is concentrated in areas that have historically provided winter wetland habitat for migratory waterfowl.

Habitat: Harvested and fallow rice fields that are flooded during the winter provide foraging habitat for migrating and wintering waterfowl.

Food Resources: Rice not collected during harvest or waste rice is a high energy food that resists decomposition when flooded longer than soybeans and corn. Food availability during winter is assumed to be the primary factor influencing the number of waterfowl an area can support.

valued, lake and waterfront properties.

It's easy to see that there are several interests drawing water from the same source. From Lake Buchanan all the way down the Colorado River to Matagorda Bay, there is a huge struggle to balance the allocation of this limited water supply to a variety of different user groups, including agricultural, municipal, industrial, recreational and wildlife management interests.

Before the recent rain events of this past spring and early summer, the drought over the previous five years saw Highland Lake levels drop significantly, and consequently, the struggle to allocate the water supply along the Colorado River became the focal point of scrutiny between different user groups along this watershed. Between all the politics, policies and fighting between user groups that was taking place, it seems allocation of the water supply may have been disproportionately aggregated amongst economic, agricultural and environmental interests downstream of the Longhorn Dam in Austin.

Of all the rice on the mid-coast prairies, rice lands within LCRA irrigation districts provide almost 50 percent of the energy from rice lands required by wintering waterfowl on the middle Texas coast.

In 2012, the LCRA cut off water for mid-coast prairie rice farmers. This was then repeated for three more years, so for four years in a row, from 2012 to 2015, there was no water in the Lower Colorado River Basin allocated for rice crops for agricultural lands within LCRA irrigation districts.

"LCRA irrigation districts are essential for providing waterfowl habitat on a landscape level for the Texas middle coast," explains Brown. "Of all the rice on

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LANDOWNER BENEFITS FROM MANAGING FOR WATERFOWL

Weed Control: Research indicates that waterfowl feeding in flooded rice fields can significantly reduce weed seeds, including wild millet, yellow-nut sedge and red rice.

Straw Decompostion: Winter flooding can reduce straw biomass by 54 percent, and waterfowl foraging in a rice field can increase straw decomposition by as much as 78 percent.

Soil Retention: Soil erosion can be reduced by holding winter rains on rice fields throughout the winter and slowly releasing water in the spring.

Enhance Water Quality: Holding water on a field during winter allows suspended solids to settle and lower their concentration in the discharged water.

Economic Potential: Farmers can earn significant revenue from leasing hunting rights on winter flooded rice and fallow fields.

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When water for rice was cut off by the LCRA in 2012, the mid-coast rice prairies began to see a significant decline in rice production and acreage. Rice lands without access to well water, or run of the river rights, were not able to produce. According to Brown, this reduction in rice acreage that began in 2012 within the LCRA's irrigation districts reduced the ability of the Texas mid-coast to support wintering waterfowl by about 600,000 birds, representing 31 percent of the Texas mid-coast wintering population.

Solutions

Although the past four to five years have been detrimental to the massive waterfowl habitat that is the Texas mid-coast rice prairies, there is hope on the horizon. At the time of writing this, the Highland Lakes were about 78 percent full. That level has increased significantly from the heart of the drought in 2012 and 2013 when lakes were only about 33 percent full.

There are no guarantees, but according to Brown, things are looking optimistic for the LCRA to allow some water for rice in 2016.

"We are not quite where we need to be, but we are a lot closer than we were in 2012," says Brown. "If lake levels will stabilize, or continue to increase, things are looking good for LCRA to provide some water for rice next year.

Kirby Brown and Ducks Unlimited are also helping to form coalitions that are encouraging the LCRA to make less political decisions and more decisions based on science. One major group fighting for the efficient use and allocation of water is the Lower Colorado River Basin Coalition (LCRBC). The goal of the LCRBC is to get people along the entire lower Colorado River basin to unite and advocate for a fair and balanced approach to river management for all parties under all conditions, including responsible planning for both drought and flood control. LCRBC is working on increasing communication between all parties along the Colorado River from the Highland

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Lakes to Matagorda Bay so that sacrifices for water use can be shared throughout the length of the entire Colorado River. More information the Lower Colorado River Basin Coalition can be found at www.waterdownstream.org.

Texas Wildlife Association Legislative Program Coordinator Joey Park says that it is important for all users along the Colorado River to understand the importance of environmental flows.

"Water was intended to flow naturally, downstream, and eventually end up in the ocean, or Gulf of Mexico," he says. "In this case, we are talking from the highland lakes to Matagorda Bay. If all users would take a moment to see the big picture, then we could move away from so much of the negativity and start looking for ways to allocate water down the entire length of the river, not just upstream."

Park says one of the ways to do this is through good land management.

"At the root of natural environmental flows and good land management is the idea of maintaining the land or returning it to, a natural state.

A few ways landowners can do this is by practicing certain land management regimes. These include rotational grazing, brush management and prescribed burning. These processes will help allow water to trickle down across the land, and not just drain right off of it.

At the root of natural environmental flows and good land management is the idea of maintaining the land or returning it to, a natural state.

"The idea is to have land that will capture water, and then release it slowly," says Park. "This makes for much more efficient use of water, decreasing the amount of water that is wasted."

Rangeland or farmland that is completely cleared does not hold water very well – the water will just run right off of it, rather than trickle and percolate, because there is not substantial vegetation to catch and absorb the water. Land with a managed brush to open field ratio will collect water as it flows through it slowly. If water is caught, absorbed and collected, less is being taken from the Colorado River, allowing more to flow downstream.

Texas mid-coast rice prairies have played a tremendous roll in the history of waterfowl migrating to our state each winter. Through the efficient and correct allocation of water, combined with efforts by those willing to save water on their properties and not waste it, these mid-coast prairies will have a future for waterfowl as well. It seems the answer is simply flowing downstream.