

A Land Ethic

FOR WATERFOWL



CHUCK AND GRACE BARTLETT



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CONSERVING HABITAT ON WORKING AGRICULTURAL LANDS IS CRUCIAL TO SUSTAINING HEALTHY POPULATIONS OF DUCKS AND GEESE

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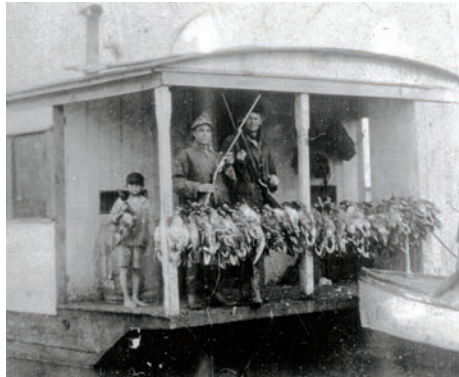
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We've been conserving waterfowl habitat in North America for better than 150 years. If you're okay with rounding off the edges of history, you can condense much of that work into three distinct eras of waterfowl habitat conservation. The story begins with the rise of the duck club, continues with the development of the public refuge system, and evolves into the conservation of waterfowl habitat on working agricultural lands. Not all chapters of this history were written in all places, and the ink isn't dry on any of them. But collectively, they have provided much of the habitat base that has been conserved for continental waterfowl populations.

The end of the Civil War and the growing prosperity brought by the industrial revolution marked the beginning of waterfowl conservation in the United States. Many of the newly affluent began to tackle that last American frontier—leisure time and how to enjoy it. A growing number of sportsmen turned their attention to duck hunting. Waterfowling in the late 1800s was rarely a one-day event. Hunters from Philadelphia, New York City, and elsewhere traveled by train to the mid-Atlantic coast, where they were likely to hunt for days if not weeks. Of course basic accommodations were needed during those excursions. Enter the shanty boat. Picture the modern houseboat stripped to its essentials, with a passable wood stove, crude bunks, and a small table capable of hosting dinner, strong drinks, and a card game. Many of the great duck clubs that came to dominate the Atlantic coast and elsewhere began as friendships formed on a humble shanty boat.

Laws that offered even minimal protection of waterfowl habitat were nonexistent in the late 1800s. In fact, public policy encouraged the destruction of such places. Into this regulatory vacuum stepped sportsmen with the means to acquire some of the nation's most productive waterfowl hunting grounds. They did so, building a



network of duck clubs that encompassed some of the finest waterfowl habitat left on the continent.

By the middle of the 20th century, private duck clubs had conserved nearly 4 million acres of habitat, with 2.5 million acres in the Mississippi Flyway alone. Nearly 365,000 acres of habitat were provided by clubs in the Atlantic Flyway, while duck clubs in the Central and Pacific Flyways contributed 545,000 and 429,000 acres, respectively. The importance of these early investments can be viewed on a regional scale. The Central Valley of California once possessed 4 million acres of wetlands and hosted 20 million to 25 million wintering ducks. Today, only about 200,000 acres remain. Nearly two-thirds of these intact wetlands are now owned and managed by private duck clubs.

Although America's first national wildlife refuge was established near the height of the duck club era, in 1903, relatively few refuges were purchased specifically for waterfowl prior to the mid-1930s. Passage



of the Migratory Bird Conservation Act in 1929 allowed the refuge system to be better aligned with the needs of waterfowl, but funding to acquire refuge lands never materialized following the onset of the Great Depression. The problem was partially solved in 1934 with passage of the Migratory Bird Hunting and Conservation Stamp Act, commonly called the Duck Stamp Act, which provided a dedicated funding source for refuge acquisition and maintenance. Since 1934, federal duck stamp sales have generated more than \$1 billion for wildlife habitat conservation.

The refuge era generally spanned from the late 1930s through the 1980s. During those years many refuges were purchased for waterfowl and the refuge system itself became closely identified with ducks and geese. By 1940, there were 62 refuges—totaling more than 2.5 million acres—outside the prairies and Alaska, which provided at least some habitat for migrating and wintering waterfowl. Approximately 1.6 million acres were divided equally between the

NATIONAL CONSERVATION TRAINING CENTER MUSEUM/ARCHIVES, FROM THE COLLECTION OF WAYNE CABOOTH; SCOTT FINK



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Private duck clubs pioneered the conservation of key waterfowl habitats during the 1800s. Federal and state agencies expanded conservation efforts dramatically during the 20th century.

Atlantic and Mississippi Flyways. Refuges in the Pacific Flyway encompassed about 570,000 acres, while those in the Central Flyway totaled 350,000 acres. Between 1940 and 1989, the U.S. Fish and Wildlife Service (USFWS) added another 158 refuges that provided habitat for migrating and wintering waterfowl. These new refuges exceeded 2.5 million acres and were well balanced among the four flyways. Refuge acquisitions in waterfowl breeding areas were equally impressive. For example, nearly 1 million acres were acquired by the USFWS for national wildlife refuges and waterfowl production areas in the Dakotas and Montana. While federal lands were a major focus during the refuge era, state efforts to provide habitat for waterfowl were equally important. By 1975, there were an estimated 5.1 million acres of waterfowl habitat managed on state lands outside Alaska.

In 1937, at the beginning of the refuge era, Ducks Unlimited was founded by a forward-looking group of waterfowl

hunters, led by publishing magnate Joseph Palmer Knapp. DU's founders, many of whom were duck club members, sought to rebuild North America's depleted waterfowl populations by conserving and restoring wetlands in Canada, where the majority of the continent's ducks and geese are raised. DU's privately funded conservation work north of the border augmented the acquisition of national wildlife refuges in the United States, which was supported by federal duck stamp funds.

The book is certainly not closed on the duck club and refuge eras. New duck clubs continue to be developed, and state and federal agencies still add to the public habitat base in important ways. Waterfowl conservation rests on the firm foundation that these earlier eras provided, and much of Ducks Unlimited's work is aimed at maintaining and enhancing this foundation.

But as the cost of acquiring habitat increased, conservationists began to recognize that the needs of waterfowl

could not be met on public lands alone. As a result, conservationists began to write a third chapter—the private lands era. Much of the effort to conserve and restore waterfowl habitat on private property has occurred on agricultural lands. One approach has been to temporarily or permanently retire cropland and restore the land back to natural habitat. A prime example is the U.S. Department of Agriculture's (USDA) Conservation Reserve Program (CRP), which pays farmers to idle cropland for up to 15 years. A second approach has been to promote conservation practices on working agricultural lands that provide habitat for waterfowl. Many producers are understandably reluctant to retire land from production, and even when willing sellers can be found, the costs are often prohibitive.

By the late 1950s, the USFWS had begun a voluntary easement program that offers financial incentives to landowners to conserve working lands that provide crucial habitat for waterfowl. For example, ranchers can continue to graze livestock on easement lands as long as they don't plow the grassland. Similar easements, which prohibit the draining, filling, or burning of wetlands, but allow normal farming to occur on surrounding land, are also available. Over the past 60 years, private landowners have enrolled 3.4 million acres of wetlands and grasslands in USFWS easement programs in the Dakotas and Montana. The demand for these easements remains as strong as ever. At present, more than 1,500 farmers and ranchers across the Dakotas and Montana would like to enroll land in USFWS easement programs. DU has played a pivotal role in leveraging private resources with important public funding sources like the federal duck stamp program and North American Wetlands Conservation Act (NAWCA) to help meet this demand, but an estimated \$250 million shortfall remains. Nowhere else on this continent would additional conservation funding provide greater and more permanent benefits for waterfowl than on the prairies.

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Thirty years after the first private lands conservation programs were launched on the prairies, similar efforts began to gain traction on key migration and wintering areas as well. In 1986, the United States and Canada signed the North American Waterfowl Management Plan (NAWMP). When the plan was updated, in 1994, it was also signed by Mexico. Key to the plan's success was the creation of regional joint ventures—partnerships involving public agencies and private organizations that share responsibility for implementing NAWMP goals on high-priority landscapes. By the early 1990s, joint ventures had been formed on several of the continent's most important waterfowl migration and wintering areas. At the same time, new sources of public funding were emerging that could be used for conservation work on private lands. These included NAWCA, as well as the USDA Wetlands Reserve Program (WRP). DU and joint venture partners provided the staff to complete the conservation work, while these programs provided much of the funding. Between 1990 and 1997, WRP alone restored nearly 500,000 acres of habitat on key waterfowl migration and wintering areas. Most of this work occurred on marginal agricultural lands that were restored back to natural habitat.

Although restoring wetlands on private lands remains important, opportunities for this type of work are limited on many important waterfowl migration and wintering areas. In these instances, joint venture partners have found innovative



DUCKS UNLIMITED



CARY KRANET/NET

Ducks Unlimited and the U.S. Fish and Wildlife Service work closely with ranchers to conserve grazing lands that support large numbers of breeding northern pintails and other waterfowl.

ways to meet waterfowl habitat needs by working with farmers on agricultural lands. DU's partnership with the rice industry is a perfect example. Nearly all the rice grown in the United States is produced in California's Central Valley, the lower Mississippi Alluvial Valley, and the Gulf Coast of Texas and Louisiana. More than 50 percent of all dabbling ducks that winter in the United States spend time in these rice-growing regions. Farmers now flood more than 1 million acres of harvested rice fields in winter, either as part of their normal farming operations or to benefit waterfowl—or to accomplish both of those objectives. Research

has revealed that these winter-flooded fields provide more than 40 percent of all the food resources available to dabbling ducks in the Central Valley and along the Gulf Coast, and that the cost of replacing these agricultural habitats with restored wetlands that provide similar amounts of waterfowl food would exceed \$3.5 billion.

Ranchers on the U.S. prairies have become essential partners in the conservation of crucial waterfowl breeding habitats in the heart of the Duck Factory, and similar opportunities to work with ranching communities are now emerging outside the breeding grounds. Flood irrigation is a common practice on ranches across the western United States. This practice involves diverting water onto hay fields



TAKING CARE OF THE LAND AND CATTLE For three generations, Deanna Sand's family has raised livestock near Ashley, North Dakota. Since 2011, Deanna and her husband, Cody, have operated their livestock ranch using a holistic grazing system. This method allows them to move cattle from pasture to pasture every two to seven days to achieve higher stock rates, increase production, and allow the grass longer recovery time.

When their Conservation Reserve Program contract expired several years ago, the Sands explored conservation options that were compatible with their ranching operations. They entered into the U.S. Fish and Wildlife Service easement program to conserve working grasslands and installed fencing and watering systems for their cattle through the Environmental Quality Incentives Program.

"These programs helped expand our ranching operations and made them more profitable," Cody says. "Our family also enjoys seeing the wildlife on our land." The Sands plan to pass down their land ethic and ranching traditions to their three children: Desa, Baxter, and Bailey.



SCOTT FINK

and pasturelands in spring to increase soil moisture and improve forage production for livestock. Most of this water originates as snowmelt, and flood irrigation provides seasonal wetland habitat that largely mimics natural flooding cycles.

As a result, flood irrigation provides valuable habitat on working lands in areas where water is often a scarce commodity. Fifty percent of the waterfowl that winter in the Central Valley, or nearly 5 million ducks and geese, rely heavily on flood-irrigated habitats in southern Oregon and northeastern California as the birds make their way north to their breeding grounds

in the Intermountain West Joint Venture were recently awarded \$2.6 million from the USDA Natural Resources Conservation Service to enhance and maintain flood-irrigated habitats in southern Oregon and northeastern California through the Regional Conservation Partnership Program. DU plans to conduct similar work in eastern Washington, and has recently partnered with the Washington Department of Fish and Wildlife to determine which flood-irrigated lands in that state are most important to waterfowl during the spring migration. Nearly 6 million acres of flood-irrigated ranchlands remain in

programs that provide incentives for private landowners to conserve important waterfowl habitats on working lands.

The story of waterfowl habitat conservation in North America spans 150 years. It began with the purchase of the first duck clubs, evolved to include a public land base that continues to provide millions of acres of permanently protected habitat for wildlife and people, and now includes conservation programs tailored to meet the needs of waterfowl and the producers who are stewards of the land. While DU is committed to maintaining and expanding all these efforts, we must also begin to think about the next chapter of the waterfowl conservation story. That chapter will almost certainly be focused on water. Many duck clubs, refuges, and wetlands restored on private lands are facing chronic water shortages, especially in the arid West. These shortages threaten to undermine many of the conservation gains made by those who came before us. Societal conflicts over water will only increase in the future, and our work on behalf of waterfowl must help address these conflicts while also meeting the needs of ducks and geese. ☞

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in spring. This includes a third of North America's pintails. Unfortunately, there have been dramatic declines in the use of flood irrigation across the West.

Since 1995, flood-irrigated land has declined by nearly 25 percent, or at a rate of 123,000 acres per year. Most of this land has been converted to center-pivot sprinkler irrigation for improved water-use efficiency. However, sprinklers do not provide standing water for waterfowl to use. Fortunately, the USDA has recognized the value of flood-irrigated habitats and is now providing incentives to ranchers to maintain this practice. DU and its partners

the West, and great potential exists for conserving these important waterfowl habitats in the future.

Although working-lands conservation has been employed on the prairies for nearly 60 years, this practice continues to offer new opportunities for waterfowl habitat conservation. Many ducks are raised and spend most of their lives on working lands, and that's where much of the future lies for conserving the birds' habitats. Recognizing and rewarding farmers and ranchers who provide vital habitat for waterfowl will be crucial to fulfilling DU's mission. So will Farm Bill conservation

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