

## Waterfowl of the Great Plains

Waterfowl include ducks, geese and swans. While geese and swans don't exhibit sexual dimorphism, male and female ducks are obviously different. Male ducks, called drakes, are often brilliantly colored and the subject of many paintings and photographs. While various species of hens may resemble one another, no two drakes look alike. Waterfowl are physically diverse, too, ranging from the smallest species of teal weighing less than a pound to the largest of swans weighing as much as 28 pounds.

Many species of waterfowl are born in or utilize the Prairie Pothole region of the Great Plains during migration. This area is the core of what was once the largest expanse of grasslands in the world, covering almost 1 million square miles. The potholes are a result of a geological phenomenon that occurred 10,000 years ago when the glaciers from the last ice age receded, leaving behind millions of shallow depressions. Potholes are rich in plant and aquatic life and support globally significant populations of breeding ducks. This area produces more than 60 percent of the mallards, gadwalls, blue-winged teal, northern shovelers, northern pintails, redheads and canvasbacks annually, yet it accounts for only 10 percent of the waterfowl breeding habitat in North America. Twelve of the 34 species of North American ducks are common breeders in the region.

But the duck factory of North America is under siege. Between 50 and 90 percent of the potholes in some regions have been lost or severely degraded, mostly due to draining for agricultural development. Since 1984, researchers estimate that nearly 194,000 acres of native grasslands have disappeared in the region. Overall, the United States is losing more than 80,000 acres of wetlands each year, the equivalent of seven football fields each day. As a result, waterfowl numbers have been greatly reduced since settlement of North America. Waterfowl management during the early 1900s focused primarily on regulation of harvest and wetland protection. The Migratory Bird Treaty was signed in 1918 giving the U.S. Fish and Wildlife Service and the Canadian Wildlife Service joint responsibility for managing this migratory resource.

The basis for an international approach to waterfowl management began when Fredrick Lincoln initiated the first large-scale banding project in the United States in 1922. As bands were returned, Lincoln was convinced that management should be tailored to different migration routes and conditions within those routes and he suggested four flyways be established in 1935. However, it was not until 1948 that the flyway system was implemented, dividing the country into the Pacific, Central, Mississippi and Atlantic flyways. The Great Plains lies in the heart of the Central Flyway.

Waterfowl management and wetland preservation have been funded by hunters for decades via two major federal programs. The Federal Migratory Bird Hunting and Conservation Stamp, commonly called a Duck Stamp, was first required of adult hunters in 1934 and cost \$1, generating \$635,001 that first year. Ninety-eight cents out of every dollar generated by the sale of these stamps goes directly to purchase or lease wetland habitat. Duck Stamps cost \$15 now and 1,616,093 stamps were purchased by hunters in 2003 generating \$24,241,395. To date, hunters have generated more than \$696 million in Duck Stamp sales which has allowed the acquisition of over 2.5 million acres of habitat nationwide. In 1937, a federal tax on firearms and ammunition was initiated

and has generated more than \$1.3 billion, much of which has been spent on state waterfowl programs.

Waterfowl populations vary based on nesting conditions and moisture. Species like the snow goose have seen dramatic increases in their numbers which has caused some concern for their long-term welfare. Huge numbers of snow geese descending on their fragile arctic tundra nesting grounds are basically eating themselves out of house and home. The destruction caused in one year to the food base on the tundra often takes decades to recover. Increased bag limits and relaxed regulations during the regular hunting seasons have been implemented in all flyways to try to reduce the overall snow goose population. A Conservation Season has been allowed by the U.S. Fish and Wildlife Service that occurs after the regular season which further relaxes regulations in an effort to reduce their numbers.

Most species of ducks have seen an increase in recent years as record rainfall has helped restore many of the wetlands in the prairie pothole region of the Great Plains. The Conservation Reserve Program, which began in 1985, removes agricultural land from production and returns it to native grass which provides increased nesting habitat for hens.

However, the future of duck populations is questionable. The long term degradation and loss of wetlands and native prairie on their breeding grounds is a serious problem that is difficult to address. And rainfall totals returning to normal and more land removed from the Conservation Reserve Program could have severe impacts on nest success and fall flights.

Federal and state agencies, along with private organizations like Ducks Unlimited, are working to maintain quality breeding habitat. Wetlands are among the most productive habitats on the planet and serve a multifaceted, critical role in the ecosystem. They are invaluable not only to waterfowl and dozens of other species of wildlife, but to the very quality of life on Earth.

Credits:

Photos by Bob Gress

Text by Marc Murrell