

'I have seen and lived among the plains and mountains of the west and the coniferous forests and open lakes of the north ... yet for me, as an individual, no other natural feature has ever had the enduring attraction of an undespoiled chain of marshes in an undespoiled setting of glacial hills.'

Paul L. Errington
In the book, "Of Men and Marshes"

waterfowl. He was born in Hennepin County, Minn., but his family moved to Montana three months later. He grew up on his family's ranch in Roundup, Montana, and after graduationg with a biology degree from Gonzaga University in Spokane, Wash., he returned to Roundup and sheep ranching.

Mr. Staunton's wildlife career began as a game warden. In those early years, he watched over big game hunting near Roundup, Miles City, and Livingston. On January1, 1937, he was hired by the USDA Bureau of Biological Survey, now the U.S. Fish and Wildlife Service.

He had not worked much with water-fowl when he was assigned to the Long Lake National Wildlife Refuge in North Dakota in 1940. But by 1944, when he was transferred to Waubay, he was dedicated to conserving waterfowl and their habitat. Perhaps his convictions were reinforced by chats with another wildlife biologist, Paul Errington of Brookings County. Mr. Errington was a unique mix of outdoor philosopher, professional trapper and hunter, and university professor who wrote extensively about prairie marshes.

The country and the world recognized the value of crops being raised by South Dakota's farmers, but not the value of potholes. Mr. Staunton knew that draining was a standard farm practice and he must have been intimidated by the massive government and public support for drainage.

He knew that a sister government agency, the Soil Conservation Service, approved, promoted, and assisted pothole drainage to avoid "harmful accumulation of water." "The SCS and the Fish and Wildlife Service were butting heads," recalls Ed Fromelt, a Webster resident who was Staunton's co-worker. "The SCS helped farmers drain and the Fish and Wildlife Service wanted them to stop."

Mr. Staunton saw circulars from S.D. State College describing how to drain wetlands, and he read articles in the Web-

ster Reporter and Farmer that talked of more and bigger regional drainage to come. The newspaper also carried advertisements for massive, new earth-moving equipment for ditching operations.

He began a survey that soon became an important part of his job. His yearly count of breeding pairs of waterfowl at specific sites in Day County showed that there were fewer pairs each year. Mr. Fromelt remembers Mr. Staunton as having many friends among the farming community. As they wrote reports by the wood stove that heated the Waubay Refuge headquarters, they'd discuss how to make folks understand that all the water in Enemy Swim Lake didn't make up for the lost potholes. Prairie ducks needed the one-tenth acre pothole for isolation during courthsip and breeding.

Mr Staunton continued sending memos to his superiors. The shelves and files in his small refuge office were filled with ledgers of carefully recorded data on the declining production of the prairie duck factory. But little was happening to slow the backhoes and bulldozers that were changing the face of the land.

On a winter's night in 1948, a young reporter stepped off a train onto the windswept platform of the Webster train depot. He would help.

Clay Shoenfeld, a part-time graduate student and free-lance outdoor writer from Madison, Wisc., had been given an assignment. He wrote about his trip in *The Flyways:*

"Shivering with both cold and uncertainty, I trudged a half-mile to the town's one hotel and set up shop in a dingy room where steam banged and rattled and hissed in a vain attempt to pump some warmth into a reluctant radiator. Early the

Photos — Opposite page, thousands of snowgeese darken the sky over Waubay Wildlife Refuge (South Dakota Tourism); at right, Fred Staunton as he appeared in 1944 when he became manager of the Waubay refuge.



An aerial photo shows wetlands and cultivated fields that dot the landscape near Waubay Refuge and the town of Grenville (upper left). The Staunton memorial site is circled by the lake.

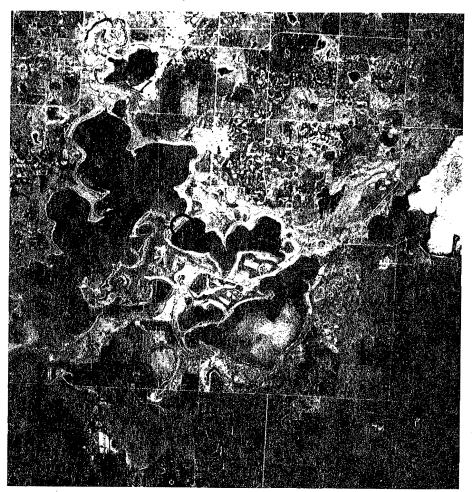
next morning, I located an old Army buddy and I hitched a ride through swirling snow squalls to view the scene..."

Mr. Schoenfeld recalled that it was not until his last day in town that he found Fred Staunton with what he would later describe as "those statistics." "That USFWS man deserves special mention because it was really he who blew the whistle on the ditchers and drainers," wrote Mr. Schoenfeld. He further wrote "no small credit should be accorded Refuge Manager Fred Staunton in first identifying and documenting the wetland habitat base so essential to United States waterfowl production in the Prairie Pothole Region."

Mr. Schoenfeld, using Mr. Staunton's data, wrote an article entitled "Goodbye Potholes" that was printed in the April 1949 edition of *Field and Stream*. The article became a landmark of popular conservation literature. There was a public outcry that echoed within government agencies. Shortly thereafter, some of the head-butting stopped when the SCS stopped subsidizing wetland drainage.

In a twist of fate, Mr. Staunton was transferred back to Montana in 1950, and did not participate in the remaining acts of the wetland protection play that he helped push onto the stage. But he left an idea that helped shape the script. He had seen that other natural resource treasures, like the Black Hills, were protected as public lands in National Forests and Parks, and contributed the idea that potholes needed similar protection.

Had he been in the Dakotas during the 1950s, he would have helped purchase small parcels of land with money from the sale of federal duck stamps. He would have welcomed "Water Bank" as an SCS program. And surely, he would have been in attendance when the first Waterfowl Production Area (WPA) was purchased in Day County in 1959—the first purchase made by the U.S. Fish and Wildlife Service under the Small Lands Aquisition Program.



Today, hundreds of thousands of acres of pothole wetlands are protected, not in large land tracts like the national forests or parks, but in small parcels of land scattered throughout the prairies.

For the remainder of his career, Mr. Staunton managed the Charles M. Russel National Wildlife Range in Montana. He retired in 1968 and was awarded the Silver Medallion for Meritorious Service to the Department of the Interior. He operated a ranch near Big Timber, Montana, until his death in 1986 at the age of 79

On July 12, 1989, 30 years after the first WPA was established, the Frederic T. Staunton Memorial will be dedicated at Hillebrand's Lake, near the present refuge headquarters. In those 30 years, government policies and public opinions have changed. Wetlands are now seen as valuable to society, and wetland protection and even rehabilitation are promoted.

S.D. State University long ago ceased publishing articles on how to drain wetlands. Rather, the Colleges of Agriculture and Engineering now study the functions, values, and benefits of wetlands.

Dr. Ray Linder, Professor Emeritus at SDSU says,

"We've come full circle. Early settlers found wetlands dotting the landscape and valued them for their water, hay, and fire protection. With expanded development and intensified land use, these values were unappreciated and we lost about half of our wetlands in South Dakota.

"Iowa is worse; 95 percent of theirs are gone. Now, I think that the public is beginning to see that wetlands perform a host of functions and have many values to farmers, merchants, public officials, and citizens." Why has public opinion changed? Are wetlands wastelands or wonderlands? Some farmers found that the cool, wet soil of drained potholes produced stunted crops in wet years, and some wetland soils turned salty. On-the-other-hand, water held on the land in potholes recharges ground water, raises soil moisture, and increases the amount of water in dugouts, which are used by livestock for watering.

As Mr. Staunton pointed out, wetlands are important for all kinds of wildlife, but now we measure the importance in economic terms. Research has shown that

wetlands are worth about \$800 an acre in waterfowl and hunting revenues to the state, about \$100 an acre to trappers, and about \$200 an acre to bait and minnow dealers. Farmers can make money on wetlands by leasing them for hunting or fish rearing.

Farmers can place wetland acreage in government leasing programs, like the new Conservation Reserve Program. Farmers who keep their wetlands use them for livestock grazing and usually find them the best late-season pasture on the farm. And they are perhaps the only pasture on the farm in drought years. One farmer said after the summer of 1988, "slough hay isn't alfalfa, but it's better than feeding them snowballs."

Some scientists believe that flooding can be reduced by holding water in potholes. A case history at our doorstep is Lake Thompson, now the state's largest natural lake. Governor George Mickelson's commission found that wetland drainage in the Lake Thompson watershed contributed to the flooding of the farms that are now at the bottom of the lake.

Wetlands may also help purify water. Wetland plants act as filters for fertilizers and chemicals before these contaminants reach lakes and streams. If more "filters" were working on the uplands, perhaps our lakes would not be so green in late summer.

Fred Staunton counted ducks because he felt that there was a signal among the numbers—a signal to man that the prairie was changing and that the changes were not in man's best interest. The ducks were right, but it was not until the next generation that we began to fully understand the many values of wetlands and how wetlands affect our lives.

About the author — Charles R. Berry is an employee of the U.S. Fish and Wildlife Service and an Adjunct Professor in the Department of Wildlife and Fisheries Sciences at South Dakota State University.



A half million majestic Canada geese make their home in South Dakota from September to March, providing enjoyment for birdwatchers, photographers and other sight-seers. They are just one of many species at the Waubay refuge.

WAUBAY WILDLIFE REFUGE NOT JUST FOR WATEFOWL: PEOPLE ARE WELCOME, TOO

FREDERIC STAUNTON WOULD be proud of the Waubay National Wildlife Refuge today. The wetlands he fought for now encompass over 4,650 acres, providing a nesting area for over 100 species of birds, and habitat that is home to 37 species of mammals and eight species of reptiles and amphibians.

Translating literally from the Sioux Indian language, the word Waubay means "a nesting place for birds." Originally, this nesting place was part of a hunting club. Following the Dust Bowl years, the refuge was established to help rebuild the dwindling duck population, along with the giant Canada goose population that was all but gone from the area.

To help provide habitat, over 35,000 acres have been purchased in six counties specifically for waterfowl production. Monies come from the sale of the Federal Duck Stamp, which hunters are required to buy along with their hunting license. Over 80,000 acres of privately owned wetlands are also protected from drainage and filling through agreements with the landowners.

Located in a water fowl migration path known as the Central Flyway, the Refuge provides birds with sanctuary during spring and fall migrations, thus no waterfowl hunting is permitted in order to protect the birds.

The blue-winged teal is the most abundant duck on the refuge, but the gadwall, redhead and shoveler are also common. Species of geese at the refuge include large flocks of snow geese, white-fronted geese, interior, Hutchinson and lesser Canadian Geese.

Offering an abundance of birdwatching, the refuge also provides visitors with a visitor center which houses numerous exhibits and displays.

Starting at the center, there is an interpretive hiking trail, which winds through the woods, past a portion of the wetland to an observation tower and picnic area.

The observation tower provides a panoramic view of the surrounding area, along with lakes and wildlife.

Other trails, including a six-mile cross country ski path, can be found at the refuge, along with outdoor classrooms and ample photographic opportunities. Deer hunting is permitted during the state hunting season.

For more information on the refuge, contact Waubay National Wildlife Refuge, Rt. 1, P.O. Box 79, Waubay, S.D. 57273 (call 605-947-4521).

-Shawna Lanning