



# Fowl Women

## OFTEN UNSUNG, WOMEN HAVE MADE MULTIFACETED CONTRIBUTIONS TO WATERFOWL CONSERVATION

By Sally E. Yannuzzi, Cheyenne Beach, Kaylan Kemink, Auriel M. V. Fournier and Susan N. Ellis-Felege

**T**he most productive workplace environments support a diverse culture, yet the field of waterfowl and wetland science has remained predominantly homogenous in gender and race. Few women or people of color have held upper-level or leadership positions (Davis et al. 2002, Taylor 2015).

It's important to have women in these positions, but by focusing only on leadership roles, it's easy to gloss over important contributions that women have made in other sectors of waterfowl and wetlands conservation. That can lead to a lack of retention of minorities within the field, creating what is often referred to as a "leaky pipeline" effect.

We would like to shine the spotlight on several women who have paved the way for upcoming generations of women in the field. By highlighting their successes, we hope we can illustrate the impacts women have made in a variety of facets of the profession and encourage more women to follow in their footsteps.

▼ Seven months pregnant, Stella Fritzell returns from a successful duck hunt with her husband.



Credit: Erik Fritzell

### Environmental policy pioneer

**Stella Fritzell** was raised in the heart of the Prairie Pothole Region during the 1920s. Denied a university chemistry education because she was a woman, she became a champion for North Dakota wetland conservation during the "Wetland Wars" that raged from the 1960s to the 1980s, when farmers and the wildlife sector were at odds over the wetlands protections.

An avid gamebird hunter, Fritzell became North Dakota's first female trap shooting champion in 1969. After her husband died and her children had grown, she became active in politics. Her public service began on the Grand Forks Park Board where she served as a two-time president. Fritzell went on to serve as an appointed member of the Grand Forks Planning and Zoning Commission and a delegate to the 1971 North Dakota Constitutional Convention, part of an effort to modernize the state's governance.

She rose to statewide prominence in 1972 when she was elected to the state senate. Fritzell went on to win reelection three times, and she used her legislative seat to fight for wildlife conservation and habitat protection. Gaining a reputation as the leading environmentalist in the state legislature, Fritzell received the 1976 Legislative Conservationist of the Year Award from the North Dakota Wildlife Federation.

In 1987, she worked with the North Dakota Chapter of The Wildlife Society to establish the first funding source for the North Dakota Game and Fish Department's nongame management section through the Chickadee Check-Off, a program funded by income tax donations.

### Outstanding in the field

**Elizabeth "Betty" Losey** was the first female field research biologist in the U.S. Fish and Wildlife Service. Although she held an M.S. in wildlife management and conservation from the University of Michigan, upon graduating in 1947, Losey was



turned away from several field research positions in the state due to concerns about women working in the field.

Despite these obstacles, she was eventually hired by the Seney National Wildlife Refuge in Michigan's Upper Peninsula as a research biologist. She worked there for three years, focusing on duck brood behavior and the role of beavers (*Castor canadensis*) in waterfowl management.

Losey excelled professionally. She served as a member of the Mississippi Flyway Technical Committee and in 1948 was inducted as the first professional female member of The Wildlife Society. From 1946 to 1952, she created and delivered wildlife management courses at the University of Michigan School of Natural Resources.

Beginning in 1996, she began a decade of volunteering at the Seney National Wildlife Refuge, mentoring interns and assisting in surveys. She published two books: *Let Them Be Remembered: The Story of Fur Trade Forts* in 1999, and *Seney National Wildlife Refuge: Its Story* in 2003.

Losey was awarded the National Wildlife Refuge Association Volunteer of the Year in 2003. Still writing at the age of 92, she authored a [peer-reviewed paper](#) on the history of sharp-tailed grouse in Seney, published in 2007.

## Game on

**Diane Eggeman** dedicated her career to waterfowl and wetland habitat management, primarily working for the Florida Fish and Wildlife Conservation Commission.

Beginning her career in 1986, Eggeman worked her way from a waterfowl biologist to the waterfowl management program coordinator in 1998 and became the agency's director of Hunting and Game Management Division in 2008.

With an obvious passion for her work and wildlife, Eggeman served in key roles throughout her tenure. She developed Florida's statewide wood duck (*Aix*



Credit: U.S. Fish and Wildlife Service

▲ The first female field research biologist in the U.S. Fish and Wildlife Service, Elizabeth "Betty" Losey served as a research biologist at Seney National Wildlife Refuge.



Courtesy Diane Eggeman

▲ Diane Eggeman was a Florida Fish and Wildlife Conservation Commission waterfowl biologist who worked her way to the role of director of the Hunting and Game Management Division. In retirement, Diane is actively working with Ducks Unlimited as integration coordinator for the North American Waterfowl Management Plan.



Credit: Henry Huntington

▲ Tuula Hollmen has devoted much of her career to studying sea ducks in Alaska. Her work has garnered her numerous awards.

*sponsa*) management and monitoring program, served on the Atlantic Flyway Council, represented Florida on the Atlantic Coast Joint Venture, co-chaired the North American Waterfowl Management Plan 2018 Update steering committee, chaired the Association of Fish and Wildlife Agencies' Waterfowl Working Group and is a fellow of the National Conservation Leadership Institute.

On the eve of her retirement in 2018, Eggeman was awarded the Ducks Unlimited Wetland Conservation Achievement Award in the state agency employee category. A TWS member, she continues to champion waterfowl, now working for Ducks Unlimited as integration coordinator for the North American Waterfowl Management Plan.

## Among academics

Standing in a relatively small circle of female academics studying waterfowl, **Tuula Hollmen** has spent much of her career dedicated to pelagic species, especially the sea ducks that call Alaska home. Her research aims to understand individual and population-level adaptations and responses to environmental change, seeking to address conservation and management objectives for marine bird species.

A TWS member, Hollmen holds both her DVM and PhD from the University of Helsinki. She is currently a senior research scientist at the Alaska SeaLife Center and a research associate professor at the University of Alaska Fairbanks. She has served as the science director and eider program manager at the Alaska SeaLife Center. She was a member of the North Pacific Research Board Science Panel from 2011-2019, serving as vice chair from 2014 to 2019. She is a member of the recovery teams for the spectacled (*Somateria fischeri*) and Steller's (*Polysticta stelleri*) eider and was the chair for the Steller's Eider Reintroduction Committee.

She has received the U.S. Fish and Wildlife Service's Recovery Champion Award, the International Wild Waterfowl Association





Outstanding Achievement Award and the Alaska Ocean Leadership Award for Marine Science.

### Prairie naturalist

**Jane Austin** has dedicated much of her career to mid-continent waterfowl, waterbirds and wetlands. Her academic roots stem from the University of Missouri-Columbia, where she earned both her master's and doctoral degrees in wildlife ecology.

Primarily focused on waterfowl ecology and habitat management, Austin's research began in 1988 as a research wildlife biologist. During her 30 years with the U.S. Geological Survey's Northern Prairie Research Center, her work has extended to include grazing and burning regimes, wetland birds and integrating science in conservation planning.

Her passions have expanded to include cranes and international efforts for their conservation. Many of her contributions to waterfowl have been through synthesizing information for biologists and managers through workshops and reports.

Since retiring, she has remained active as an emeritus research wildlife biologist with the Northern Prairie Research Center in crane conservation. A TWS member, she continues to publish research on plant and avian communities and serves as the editor for the *Prairie Naturalist* and the *Proceedings of the North American Crane Workshop*.

### Conserving the land

Like many starting their wildlife careers, TWS member **Karla Guyn's** path began as a summer student, first at Delta Waterfowl in 1988 and then with Ducks Unlimited Canada in 1991. She received her master's and doctorate degrees from the University of Saskatchewan studying northern pintail (*Anas acuta*) breeding ecology and returned to Ducks Unlimited Canada in 1998.

For the next 15 years, she focused on developing and implementing science-based conservation planning. In 2013, she was promoted to national director of conservation, overseeing conservation programming, science, education and industry and government relations.

In 2016, she was recruited to serve as the first female CEO of Ducks Unlimited Canada, where she led all aspects of the organization, including strategy development, finance, marketing and fundraising. During her career, she served on the North American Waterfowl Management Plan Committee, chaired the Sustainable Forestry Initiative and Project Learning Tree Canada boards and served as president of The Wildlife Society's Manitoba Chapter.

She was named a TWS fellow in 2016 and received the University of Saskatchewan Alumni of Influence award and the Lethbridge College Distinguished Alumni award. After retiring in 2021, Guyn continues to champion conservation through serving on provincial and national government advisory committees.

### A deeper look

While saving money for graduate school, **Jessie Price** joined the bird world as a lab technician at Cornell University's New York State Veterinary College Poultry Disease Research Farm. A pioneering person of color in the field, she received her M.S. in 1958 and her PhD in 1959 studying *Pasteurella anatis* infections in domestic fowl.

Continuing in this vein, she went on to identify and create vaccines for several diseases that cause significant avian mortality, including *Pasteurella multocida*, *Escherichia coli*, and duck hepatitis. The

▶ Jane Austin, center, receives a Wetland Conservation Achievement Award from Ducks Unlimited.

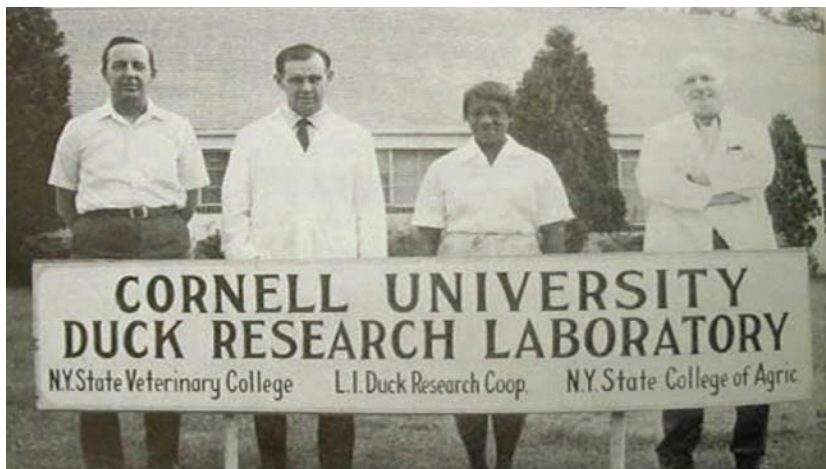
▼ Karla Guyn stands in front of Oak Hammock Marsh, an important waterbird area in Manitoba, Canada.



Credit: Ducks Unlimited



Courtesy Karla Guyn



Credit: Cornell University made available under CC0 1.0

▲ Jessie Price stands alongside her colleagues at Cornell University's Duck Research Laboratory.



Courtesy Mass Audubon

vaccines she created not only saved the domestic fowl industry from further losses, they also prevented spread between domestic and wild fowl.

After joining the National Wildlife Health Center of the National Biological Service in 1977, Price discovered the snow goose (*Anser caerulescens*) vector of avian cholera—which caused the disease to proliferate in wetlands—and developed a vaccine to prevent it. She also explored avian tuberculosis for whooping crane (*Grus americana*) conservation and worked to improve the survival of captive-reared Aleutian Canada geese (*Branta canadensis leucopareia*) upon release.

## Waterfowl enthusiasts

While perhaps not traditional waterfowl enthusiasts, two cousins, **Harriet Hemenway and Minna Hall**, were some of the earliest defenders of waterfowl and other birds, beginning their movement in the 1890s.

The pair founded the Massachusetts Audubon Society in 1896. Leading the boycott of bird feathers in the fashion industry through socialite tea parties, Hemenway and Hall's actions led to the passage of the Weeks-McLean Migratory Bird Act in 1913.

Ultimately, their actions set the stage for the formation of the National Audubon Society and the Migratory Bird Treaty Act of 1918, the most vital avian protection regulation in America.

## Inspiring new generations

This is by no means an exhaustive list, but it does illustrate the breadth of roles women have played in waterfowl and wetland ecology.

Visibility of diversity can have a strong, positive influence on the success of a field and retention within it. With women filling out much of the ranks of early-career waterfowl and wetlands conservationists, celebrating those who have come before and impacted the field in both traditional and nontraditional ways may stimulate increases in retention and diversity.

It's important to champion women who have played critical roles in waterfowl and wetland science as they can inspire young women to realize their potential in this field. ■

▲ Harriet Hemenway founded the Massachusetts Audubon Society. With her cousin, Minna Hall, she advocated for the protection of birds, paving the way for the Migratory Bird Treaty Act.



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