U.S. Fish & Wildlife Service

Conservation History

Women in Conservation

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From the Historian

Welcome to the second annual issue of *Conservation History*, this time dedicated to those extraordinary women who built our environmental movement, but are all too often left out of conservation history. This issue recalls the forgotten, famous and infamous women who were wildlife warriors as fierce and effective as their male counterparts, if not as recognized. Our editor, Maria Parisi, has devoted many hours of womanpower to create and shape this collection, which we hope will bring to light some less remembered conservation heroes. From the famous pioneers like Rachel Carson to the equally pioneering Elizabeth Losey and Evelene Spencer, this issue captures the women environmental advocates, scientists, writers and leaders who bequeathed us our present wildlife legacy.

This issue of *Conservation History* also marks an advance from *quantity* to *quality* in this living journal. When our current editor took over, we had published a *Conservation History* issue every 5 years, a woefully slow publication schedule that did little to diminish the backlog of history worth sharing. The initial goal of publishing an issue a year was met with this issue, thanks to unusual adherence to deadlines by contributors and impressive diligence of the editor. This issue also marks the first peer-reviewed issue of *Conservation History*. Peer-review is the gold standard for scientific and historical journals, and we are proud to add this layer of veracity to this issue—and every issue to follow. In addition, this issue has reached out to a wide-range of historians, conservationists, writers, heads of conservation non-governmental organizations, and U.S. Fish and Wildlife Service employees (both active and retired) to present a depth of experiences and breadth of perspectives as befits a topic as important as our nation's natural resources. Finally, I hope you enjoy the exciting new artwork provided by our National Conservation Training Center graphic designer Kristin Simanek. In spite of being a history journal, we hope to continue to experiment with new graphics, new columns and new ways of telling old stories. So, with this context in mind, I hope you enjoy this issue and the subsequent ones that will be available annually, until we run out of new histories (and herstories) to tell.

Mark Madison, U.S. Fish and Wildlife Historian and Founder of Conservation History.

"For most of history, Anonymous was a woman."

— Virginia Woolf (1882-1941)

Rachel Carson

Whose Stories Are We Missing?

That's where I left off in my editor's note from the 2019 journal. After noting the accomplishments of six white men we credit for shaping the conservation work we do today, we decided to feature women in the 2020 journal. We identified women who worked for the U.S. Fish and Wildlife Service (Service) or who influenced the work we do. We begin in the late 1800s and continue to today's conservation heroes. In the first essay, Catherine Woodward weaves together themes that connect these pioneers over this time in conservation history.

Thanks to great interest in this year's theme, we've found ways to expand the work. Kristin Simanek (Design and Publishing Branch) created the artwork that graces the cover and introduces the feature essays. From the beginning, we designed her work to fit on banners we're hanging on lampposts around the National Conservation Training Center (NCTC) campus. We also want to tell the stories of many more women in conservation history, beyond the Service, and beyond U.S. borders, and so we are creating a poster with an accompanying handout to distribute to anyone interested, even schools. The poster features the images of 15 women and lists another 40 women along a timeline, from 1647 to 2016. The handout showcases the contributions of all the women noted. In the long run, we'd like to create an interactive online resource, where you can dig deeper to learn more about these women. In the meantime, NCTC is planning its first virtual lecture and interview with Dyana Furmansky, Rosalie Edge's biographer, this year—100 years after Edge, suffragist turned conservationist, successfully lobbied for the 19th amendment, granting women the right to vote.

As you read this journal, you'll see the recognition these pioneering women achieved. You may also notice the many nicknames and labels describing them—iconoclast, Fish Evangelist, hellcat, seer, mentor, force of nature, Her Deepness, pioneer, peacemaker. And how about these? Grandmother of the Conservation Movement, First Lady of the U.S. Fish and Wildlife Service, or, as one man greeted the Service's first female director, little lady. If John Muir had grandchildren, would we have called him the Grandfather of the Conservation Movement? I do not doubt these names stem from well-meaning intent, and yet, how often do we remember successful men as fathers or brothers or sons? First Lady, Dr. Lucille Stickel? By definition, First Lady is the spouse of a head of state, and not the one in charge. Little Lady? To Director Mollie Beattie's credit, she won over some of her male colleagues.

Barriers for women, people of color, and others outside the dominant culture remain. I hope you'll enjoy learning about these outstanding women, and while we have work to do, the Service has changed. Indeed, as this goes to print, Aurelia Skipwith is the Service's first African-American female director.

So, now, whose stories are we missing? The theme for the 2021 journal is our agency's sesquicentennial anniversary. The Service's origins began February 9, 1871, when Congress established the U.S. Commission of Fish and Fisheries. Going forward, we will continue to share our history and heritage, and we will seek perspectives outside the dominant culture and tell stories not often told.

Maria E. Parisi, Conservation History Editor, Heritage and Partnerships Branch, National Conservation Training Center, U.S. Fish and Wildlife Service

Louella Cable.
Courtesy Archives and Special Collections, University of South Dakota

Our First Female Scientist

While preparing this journal, we learned about Dr. Louella E. Cable, our first known female scientist. In 1927, the U.S. Bureau of Fisheries, one of our predecessors, hired Cable as an aquatic biologist. Cable was an accomplished researcher, author and illustrator. She was among the first to rear fish in a lab, and she identified unknown larval stages of fish species. Her doctoral research focused on aging lake trout via their scales, which aided in lake trout restoration. Cable's goby is even named after this pioneer among female scientists. She retired from the Service in 1970.

A more in-depth essay about Cable will appear in *America's Bountiful Waters: 150 Years of Fisheries Conservation and the U.S. Fish and Wildlife Service* in 2021.

Rachel Carson

“Women’s History Is Women’s Right”

Feature essays in the journal are in chronological order by birth year.

Minna B. Hall	1851-1941
Harriet Lawrence Hemenway	1858-1960
Florence Merriam Bailey	1863-1948
Evelene Spencer	1868-1935
Rosalie Barrow Edge	1877-1962
Mardy Murie	1902-2003
Rachel Carson	1907-1964
Frances Hamerstrom	1907-1998
Lucille Farrier Stickel	1915-2007
Celia Hunter	1919-2001
Helen C. Fenske	1922-2007
Brina Cattell Kessel	1925-2016
Louella Cable	1927-1970
Sylvia Earle	1935-
Mollie H. Beattie	1947-1996
Mamie Parker	1957-
Crystal Leonetti	1976-

Catherine Woodward, Biologist, U.S. Fish and Wildlife Service

We have been celebrating women’s history in the United States for the whole month of March since 1987. Prior to that, we celebrated women’s history for the week of March 2-8, since President Carter signed the proclamation in 1980. “Women’s history is women’s right—an essential, indispensable heritage from which we can draw pride, comfort, courage, and long range vision,” Gerda Lerner said as she sat beside the President on proclamation day. Before this, there was just 1 day a year to recognize women and their history, starting in 1909.

In this year’s journal, we focus on women in conservation history; we raise the voices of remarkable women to commemorate the past, inform the present, and inspire the future. We hope to raise awareness about their contributions to conservation through these stories.

To be a woman in the early days of documented conservation history, you had to have grit and gumption to influence others, especially living in a man’s world. From the 1890s to 1920s, there was mass dissatisfaction with corruption, inefficiencies and traditional politics, which led to the Progressive Era. This was a time of many reforms, including women’s right to vote. Environmental issues at that time involved the plume trade, where hunters and sportsmen slaughtered birds for their feathers and put many species on the brink of extinction. The pesticide dichlorodiphenyltrichloroethane (DDT), used in World War II to control malaria and other diseases, caused thinning of eggshells and harmed wildlife when used domestically in postwar America. The fight for stronger legislation to protect wildlife and natural areas, both land and sea,

was not possible without women's voices rising up against powerful organizations led by men.

The women we feature in this journal were trailblazers; they became role models for future generations. Most of them had status, education and resources to leverage for their cause. They were feisty and intelligent, willing to stand up for their beliefs, often at personal cost. They were visionaries, and they each left a legacy.

During the time of the feather trade, Harriet Hemenway and Minna Hall were two socialites who made a world of difference. By meeting over tea, they strategized to end the deadly feather trade. They began inviting other women of status, who wore feathered hats, for tea resulting in 900 people boycotting feather fashion. At a time when women could not vote, Hemenway and Hall, along with other prominent men and women, started a bird club that pressed for stronger legislation protecting birds. The Audubon movement expanded to the national level, and the U.S. Congress passed the Lacey Act and the Migratory Bird Treaty Act, prohibiting harm to a migratory bird or any of its parts. The initial actions of Hemenway and Hall protected birds and illegalized the feather trade.

Appreciate birds by observing them through an opera glass, not through the barrel of a rifle, thought Florence Bailey. She showed the world it is not necessary to kill an animal to study it. Bailey enjoyed watching birds, studying their behaviors and leading others on bird walks. She was an educated writer who encouraged women to study science and who recognized female scientists of the day. She trained teachers in field and lab ornithology. Another privileged woman who spent her career around studying birds was Frances Hamerstrom. She mentored thousands of students in ornithology throughout her career; many of whom became conservationists and ornithologists. She was a student of Aldo Leopold, the founder of wildlife management, and in 1940, she was the first woman to earn a master's degree in this emerging field—the only woman to earn a graduate degree under Leopold. These women saved the birds for future generations to enjoy. Hemenway, Hall, Bailey, and Hamerstrom should be honored with high regard for their contributions to the field of ornithology.

Rosalie Edge grew up privileged in a prominent family; she was a suffragist, turned bird watcher, turned conservationist who established the Emergency Conservation Committee and founded the world's first preserve for birds of prey, Hawk Mountain Sanctuary in Pennsylvania. The conservation movement had never seen such a tenacious agent of change. Edge attacked both the Audubon Society and the Bureau of Biological Survey for not living up to their wildlife conservation missions; instead, they were killing species deemed "non-beneficial." In spite of fierce opposition, Edge eventually persevered in protecting raptors and other endangered birds.

Edge was also an early voice against the use of DDT and its harm to birds in 1948, 14 years before Rachel Carson wrote *Silent Spring* and warned the public about the dangers of pesticides. Much of the evidence Edge and others used came from Lucille Stickel, a pioneering toxicologist at the Patuxent Research Refuge. Stickel was a wildlife research biologist with a thirst for knowledge. There was little information about the harmful effects of pesticides on wildlife, and in 1946, Stickel published her first contaminant paper reporting the results of DDT. She and her colleagues provided the evidentiary support for Carson's *Silent Spring*. Through the work of Edge, Stickel and Carson, the newly established Environmental Protection Agency banned DDT in 1972, and the public learned nature is vulnerable to human intervention.

Protecting our country's last frontier, an unspoiled remote wilderness, were the legacies of Margaret Murie, Brina Kessel and Celia Hunter. Trained in a wide variety of fields, these women conservationists were pilots, writers, scientific researchers and educators. All of them made their careers in Alaska. Margaret "Mardy" Murie moved to Alaska as a young girl, becoming the first woman to graduate from the University of Alaska. She married Olaus Murie, who was working for the Bureau of Biological Survey. That same year, Murie joined him on a 550-mile, 8-month expedition to study caribou in Alaska's Brooks Range. Not many women would be willing to honeymoon, as she did, on such a long trek in the vast wilderness. She was a strong advocate for Alaska's wild places. The Muries' studies in Alaska supported the efforts to establish Arctic National Wildlife Refuge in 1960. Mardy played an important role in protecting wilderness in Alaska and around the nation and is rightfully lauded for her efforts.

Brina Kessel was one of the first scientists to complete extensive research on the birds of Alaska. She was a graduate student Aldo Leopold, like Fran Hamerstrom, who was the first woman to earn a graduate degree in wildlife management. Kessel grew up with a family that loved wildlife. As with many other female field biologists of the time, she experienced sexism: she could not conduct research on certain parts of Alaska, because women were not allowed on petroleum sites. However, she persisted in her research and found ways to continue her work with the University of Alaska. Celia Hunter's unique career included being a pilot during World War II and creating Alaska's first ecotourism company. Hunter told stories and educated people about Alaskan conservation and wilderness as she gained support of her community in establishing the Arctic Refuge. Through her career, Hunter showed intelligence and effectiveness as she began at a grassroots level and rallied big crowds to protect these threatened lands. Murie, Kessel and Hunter all made significant impacts through their adventurous and unique careers protecting Alaska's wilderness.

Many women profiled in this issue were impressive pioneers spearheading movements and pushing the conservation movement into new directions such as: Helen Fenske, Crystal Leonetti, Evelene Spencer, Mollie Beattie and Sylvia Earle. Helen Fenske's story was a classic 'David vs. Goliath' story in winning her case against the powerful Port

Authority. Her advocacy helped establish the Great Swamp National Wildlife Refuge and the Department of the Interior's first Wilderness Area east of the Mississippi. Crystal Leonetti was the first Indigenous woman to serve as a Native liaison for the Service. She introduced the first Alaska Native Relations training to the U.S. Fish and Wildlife Service (Service), a crucial tool for Service employees working with tribal nations on wildlife management in Alaska. Another first was celebrity chef Evelene Spencer, hired by the Bureau of Fisheries to help promote eating fish. She popularized the idea of fish as fighting food, to save other foods for men fighting in World War II. Spencer wrote a popular cookbook, which still sells today and which benefitted the fishing industry at the time. Another front runner, Mollie Beattie, was the first woman to lead the Service. She changed many things for the Service, including policy for the Endangered Species Act and the framework for the National Wildlife Refuge System—distinguishing purpose and use on the refuges when it comes to hunting, fishing, trapping and more. Beattie left the organization better than she found it, while, too, serving as a role model for other women in an agency with predominantly male employees.

Sylvia Earle opened up the world of marine conservation as an early woman oceanographer. She illuminated the underwater world for the public and fiercely advocated for protecting the health of the ocean. Earle faced many challenges, such as applying for positions not open to women. Unable to live and work aboard an underwater exploration vessel with men, she led an expedition with all women, and it changed her life. Due to Earle's work, the Service manages more land and water mass than any other agency, with more than 150 million terrestrial acres and 760 million acres of submerged lands and waters, primarily in the 5 Marine National Monuments.

Mamie Parker spoke words of wisdom when she said, "We are stronger because we had to be." She started her career in the Service as a biologist, and she rose in the ranks to become the first female African-American Regional Director and the first female African-American Assistant Director. Parker writes about the value of pushing ourselves to do what is right, not what is easy. In a time when we face more challenges than ever, we need to work together, honoring all perspectives, to continue advancing conservation. We are making history today as this year marks the first year the Service has a female African-American director, Aurelia Skipwith.

This issue of *Conservation History* shares the stories of a fine group of women, each with their own meaningful legacy. They shaped regulations to protect birds and create a cleaner environment, established protected areas of land and water, shattered the glass ceiling in field biology, and created space in today's conservation movement for women to take a seat at the table. Through countless awards, and public lands bearing their names, they made history and left legacies. There is a lot we can learn from their character, persistence and work ethic. May each of these women inspire us in our careers to be better stewards of our fish, wildlife, plants, and their habitats.

Catherine Woodward. Ryan Hagerty/USFWS

Reference

Zorthian, J. (2018, March 1). This is How March Became Women's History Month. *Time*, https://time.com/4238999/womens-history-month-history/

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Extracting glochidia from a Plain pocketbook mussel using the syringe method. Ryan Hagerty/USFWS

Saving Birds Over Tea
Harriet Lawrence Hemenway and *Minna B. Hall*

Paul Tritaik, Heritage Committee Member, South Atlantic-Gulf and Mississippi Basin Regions, U.S. Fish and Wildlife Service

On a January afternoon in 1896, in the parlor of a Boston Victorian brownstone home, a Back Bay socialite read a disturbing article about the slaughter of beautiful egrets in Florida by plume hunters. The article described in graphic detail the resulting carnage of plucked, lifeless bodies of birds and their orphaned chicks left to starve, all in the name of high fashion. Outraged, Mrs. Harriet Hemenway shared the article with her cousin across the street, Minna B. Hall. Over tea, they ambitiously strategized how to end the cruel, multimillion-dollar plume trade that was decimating whole populations of wild birds.

Harriet Hemenway was no stranger to controversy. She was considered independent, energetic and a bit of an iconoclast. Harriet came from a family of abolitionists, and she once hosted a black man as a houseguest, because he couldn't get lodging anywhere else in Boston. That was considered shocking for the time, even though that man was Booker T. Washington.

Before reading that horrifying article on plume hunting, both Harriet and Minna were among the many women who had succumbed to the fashion of wearing feathers adorned on their hats. Once they learned that their fashion choices required the killing of breeding birds for their nuptial plumes and the subsequent abandonment of their young, Harriet and Minna not only pledged to never wear such hats again, but to work on ending the practice altogether. This was a monumental challenge as feathers were more valuable than gold at the time, placing a heavy price on the lives of birds. Indeed, by 1896, 5 million birds across nearly 50 species were being killed annually to supply the millinery trade. This left fewer than 5,000 nesting egrets in the United States and resulted in the extirpation of terns from New England states.

Harriet and Minna pulled out their lists of high society ladies who likely owned feather hats and invited them to afternoon tea parties, where they served fine tea and engaged in friendly conversation. After countless afternoon tea parties and gentle persuasion to eschew feather hats, Harriet and Minna successfully enlisted more than 900 women to boycott the buying and wearing of feather hats.

Harriet and Minna were astute enough to recognize that change would require the participation of influential men as well, especially considering that women had not yet secured the right to vote. Harriet enlisted the support of her husband, Augustus Hemenway (1853-1931), an heir to a shipping fortune. Mr. Hemenway was also interested and active in protecting the environment, including helping to establish Boston's municipal park system. The women also recruited prominent, affluent families and reached out to esteemed Boston scientists to help the cause, including ornithologist George Mackay and Harvard naturalists Charles S. Minot and Outram Bangs.

On February 10, 1896, Harriet and Minna invited six other prominent men and women to Harriet's home to organize a new bird club that would work to protect birds. They decided to name this club the Massachusetts Audubon Society for the Protection of Birds, after the great bird painter and in the tradition of earlier English bird clubs. Although George Bird Grinnell, editor of *Forest and Stream*, formed The Audubon Society of New York in 1886 and published the first volumes of *The Audubon Magazine*, it only lasted until 1889 due to funding issues. The Massachusetts Audubon Society, however, has been the oldest continually operating Audubon Society in the United States. Harriet and Minna convinced nationally recognized ornithologist and co-founder of the Nuttall Ornithological Club, William Brewster, to become president, and Charles Minot to be chairman of the board.

The society's ultimate purpose, as stated by Minna Hall, was "to discourage buying and wearing, for ornamental purposes, the feathers of any wild bird, and to otherwise further the protection of our native birds." A major goal of the Massachusetts Audubon Society was to influence other states to start Audubon societies, and indeed, by 1898, state-level Audubon societies had been established in 15 other states and the District of Columbia. The Massachusetts Audubon Society was a leader in the campaign to end the commercial slaughter of plume birds. In 1897, the organization helped Massachusetts pass a bill outlawing trade in wild-bird feathers. It also worked to develop model bird legislation for other states to adopt and worked with the U.S. Congress to pass the Lacey Act in 1900, which prohibited the interstate shipment of animals killed in violation of local state laws. The Lacey Act was like the Audubon model laws that were recently enacted in multiple states. This landmark legislation was instrumental in curbing the illicit plume trade.

The Massachusetts Audubon Society leaders also recognized the need to coordinate efforts among the various state Audubon Societ-

ies. In 1900, they helped organize a conference of state Audubon societies in Cambridge, Massachusetts and another conference in New York, the following year, to coordinate efforts to protect wild birds on a national level. By 1902, with the prodding and funding of the Massachusetts Audubon Society, the National Committee of Audubon Societies was established. In 1905, this group of state Audubon societies formally incorporated as the National Association of Audubon Societies, which later became known as the National Audubon Society. This enabled the Audubon Societies to fund Audubon wardens sworn to protect vulnerable bird rookeries and to advocate for stronger bird protection laws.

The influence of the Massachusetts Audubon Society reached the highest levels in 1902, when friend of Charles Minot's family and former Brewster's Nuttall Ornithological Club member, Theodore Roosevelt, became President of the United States. President Theodore Roosevelt listened to the appeals of his Audubon friends and launched the protection of wetland rookeries by executive order, starting at Pelican Island in Florida, thereby establishing the first national wildlife refuge. Appeals to the White House didn't end with the Theodore Roosevelt Administration. In 1909, when the First Lady, Mrs. William Howard Taft, had the audacity to appear at the presidential inauguration with feathers in her hat, Minna Hall promptly wrote her a personal letter of protest.

The Massachusetts Audubon Society continued to press for stronger legislation protecting birds. In 1913, Congress passed the Weeks-McLean Migratory Bird Act, which banned the spring shooting of game and insectivorous birds and declared them to be under the "custody and protection" of the Federal government. In 1916, the United States signed a treaty with Great Britain (acting on behalf of Canada), in which the two countries agreed to stop all hunting of insectivorous birds and to establish specific hunting seasons for game birds. In 1918, to implement the new treaty, Congress passed the Migratory Bird Treaty Act, which officially made it a crime to "pursue, hunt, take, capture, kill," or "sell" a migratory bird or any of its parts, including nests, eggs and feathers. In 1920, the U.S. Supreme Court rejected a challenge to the constitutionality of the Migratory Bird Treaty Act, ruling that it does not violate states' rights.

By 1920, no woman with any sensibility would be seen on the streets of Boston wearing feathers, at least not without being admonished, or at least glared at, by one of her sisters. Indeed, the issue was dead. The trade had been made illegal, and feathers were soon out of fashion thanks to the initial actions of two very progressive and brave women.

Harriett Lawrence Hemenway portrait by John Singer Sargent, 1890.

References

Feathered hat.

Lady plume hat.

Great egret nesting in a rookery in St. Augustine, Florida.

Kelly, K. (2014). Harriet Lawrence Hemenway (1858-1960): Saving Birds One Hat at a Time. *America Comes Alive*, April 8, 2014.

Leggett, K. (1995). "The Bird Ladies of Boston." *The New York Times*. November 12, 1995, Section 7, Page 36.

Mitchell, John H. (1996). The Mothers of Conservation. *Sanctuary: The Journal of the Massachusetts Audubon Society*, Centennial Issue - January/February 1996, 1-20. https://blogs.massaudubon.org/yourgreatoutdoors/the-mothers-of-conservation/

Packard, W. (1921). The Story of the Audubon Society: Twenty-five Years of Active and Effective Work for the Preservation of Wild Birdlife. *Bulletin of the Massachusetts Audubon Society for the Protection of Birds*. Boston, Massachusetts.

Souder, W. (2013). How Two Women Ended the Deadly Feather Trade. *Smithsonian Magazine*, March 2013.

Weeks, L. (2015). Hats Off To Women Who Saved the Birds. National Public Radio History Department, July 15, 2015.

Feather Trade. *Wildlife Journal Junior*. New Hampshire PBS, 2019.

Zhang, T. (2018). The Conflict of Conservation, Fashion, and Industry: Compromise between Environmentalists, Women, and the Plume Trade. National History Day.

Through the Opera Glass: *Florence Merriam Bailey*

Paul Tritaik, Heritage Committee Member, South Atlantic-Gulf and Mississippi Basin Regions, U.S. Fish and Wildlife Service

A young woman, while attending college, became one of the first leaders of the Audubon movement. Florence Merriam grew up in upstate New York and was nurtured in science and nature by her father (Clinton Levi Merriam), mother (Caroline Hart Merriam), and older brother (Clinton Hart Merriam). Her father was a banker and U.S. Congressman who was interested in science and corresponded with John Muir. Her college-educated mother was the daughter of a county judge and New York Assemblyman, who encouraged Florence to pursue higher education. Her older brother, C. Hart Merriam, would become the first chief of the Bureau of Biological Survey. Family friend, Ernest Thompson Seton, was also an early influence on Florence.

Florence attended Smith College in Northampton, Massachusetts, from 1882 to 1886, and by that time had already demonstrated a unique passion for bird study. Most naturalists at the time studied birds using their skins obtained by shooting them or examining those stored in universities and museums. Florence, however, preferred to study live birds and was the first to advocate using binoculars to identify them and study their behavior.

Killing birds to study them seemed unnecessary to Florence, but killing birds to wear their feathers was horrifying. Florence was disgusted to see so many women wearing feathers and even entire dead birds on their hats. An estimated 5 million birds a year were being killed for fashion. In 1885, Florence began to write articles on bird protection.

When George Bird Grinnell started the first Audubon Society of New York in February 1886, one of the first to respond to his call to action was Florence. In March 1886, Florence organized the Smith College Audubon Society with a classmate, Fanny Hardy, to bring attention to this slaughter. She inspired a hundred students—a third of the student body—to distribute 10,000 circulars and to write impassioned protests to the newspaper.

One of the ways Florence sought to change attitudes about birds was to introduce students to the wonder and beauty of birds by leading groups on bird hikes. She even attracted luminary naturalists like John Burroughs to lead bird walks when he visited Smith College. "We won't say too much about the hats," she wrote in *Bird-Lore*. "We'll take the girls afield, and let them get acquainted with the birds. Then of inborn necessity, they will wear feathers never more."

Florence left Smith College in 1886 without receiving a degree, but she was later in 1921 granted a B.A, as a member of the Class of 1886. She continued to work for the Audubon Society and wrote articles on birds for *The Audubon Magazine*, including her popular "Fifty Common Birds and How to Know Them." In 1889, Florence compiled those articles into her first book, *Birds through an Opera Glass*. This was considered the first field guide to American birds by suggesting the best way to view birds was through the lenses of opera glasses (binoculars), not shotgun sights. This book was published under her own name, not a pen name, as was the custom for female authors at the time. In describing a female warbler, she wrote, "Like other ladies, the little feathered brides have to bear their husbands' names, however inappropriate. What injustice! Here an innocent creature with an olive-green back and yellowish breast has to go about all her days known as the black-throated blue warbler, just because that happens to describe the dress of her spouse!"

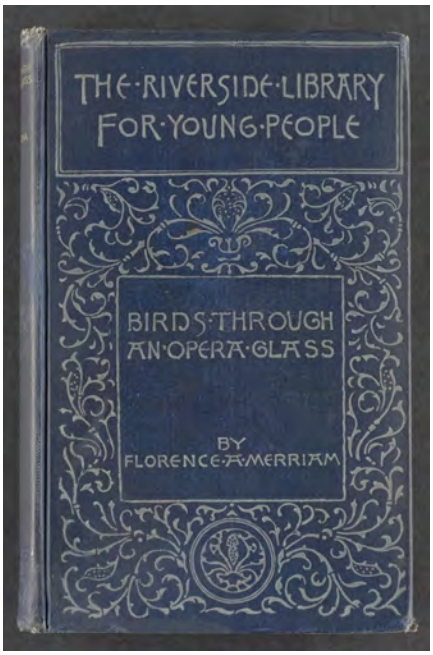
Florence was also active in social work. She helped educate and support young employed women in Chicago and New York City, many of whom were new European immigrants. While in New York City, Florence contracted tuberculosis and decided to travel west in 1893 to convalesce. She hardly rested though, attending 6 months of lectures at Leland Stanford Junior University and traveling through California, Utah and Arizona to observe birds. She compiled her notes into travelogues and bird field guides like *My Summer in a Mormon Village* (1894), *A-Birding on a Bronco* (1896), and *Birds of Village and Field: A Bird Book for Beginners* (1898), a popular bird guide with more than 200 drawings by Ernest Thompson Seton, Louis Agassiz Fuertes and John L. Ridgway.

Her health restored, Florence moved to Washington, D.C., to live with her brother, C. Hart Merriam. There she helped the Women's National Science Club get women to start branches throughout the country to promote female scientists. Florence also co-founded the Audubon Society of the District of Columbia with Mrs. John Dewhurst Patten in 1897, 1 year after Massachusetts Audubon Society's founding. Early leaders included Theodore. S. Palmer and Robert Ridgway, and even President Theodore Roosevelt became a member and hosted meetings. Florence was an active member of its executive committee and led the annual spring bird class to provide basic instruction in both field and

laboratory ornithology to teachers. She was also active with the Committee on Bird Protection of the American Ornithologists' Union and helped advocate for bird protection laws, like the Lacy Act of 1900.

Florence's move to Washington D.C. was fortuitous for personal reasons, as well. Her brother introduced her to Biological Survey naturalist Vernon Bailey. They married in December 1899 and began traveling to explore the natural world. Vernon began a series of field trips for the Division of Biological Survey and Florence frequently accompanied him. Using a simple tent, the couple went camping in Texas, California, Arizona, New Mexico, North and South Dakota, the Pacific Northwest and New England. Vernon collected and studied mammals, birds, reptiles and plants, and Florence documented her ornithological observations made on all these trips. Like her, Vernon was opposed to killing animals and developed one of the first live mammal traps, called Verbail, a contraction of his own name.

In 1902, Florence published the *Handbook of Birds of the Western United States*, which was to serve as the companion volume to Frank M. Chapman's *Handbook of Birds of Eastern North America*. It became the standard work for half a century and was highly proclaimed by such eminent naturalists as Olaus J. Murie.



In 1928, Florence completed *Birds of New Mexico*, the first comprehensive report on the birdlife of the Southwest. In 1931, Florence received the William Brewster Memorial Award of the American Ornithologists' Union for this work, and 2 years later, the University of New Mexico awarded her an honorary doctorate degree "in recognition of the educational and scientific value of her work on Birds of New Mexico." The Biological Survey published Vernon Bailey's companion work, *Mammals of New Mexic*o, in 1931.

Florence authored 10 books and published about 100 articles in ornithological journals, such as *The Auk*, *Bird-Lore*, and *The Condor*, and in popular periodicals like *Forest and Stream*, *The Outlook*, *Popular Science*, *The American Agriculturist*, and *The Chautauquan*. Florence was the first woman Associate Member of the American Ornithologists' Union (1885), the first woman elected as a Fellow of the Union (1929), and the first female recipient of the Brewster Award (1931). In Arthur Cleveland Bent's *Life Histories of North American Birds*, Florence was among the authorities most frequently quoted on bird habits and behavior.

Florence Merriam Bailey was memorialized in ornithology by Dr. Joseph Grinnell in 1908, when he named a subspecies of Mountain Chickadee from the higher mountains of southern California–*Parus gambeli baileyae* (now *Poecile gambeli baileyae*)–in her honor.

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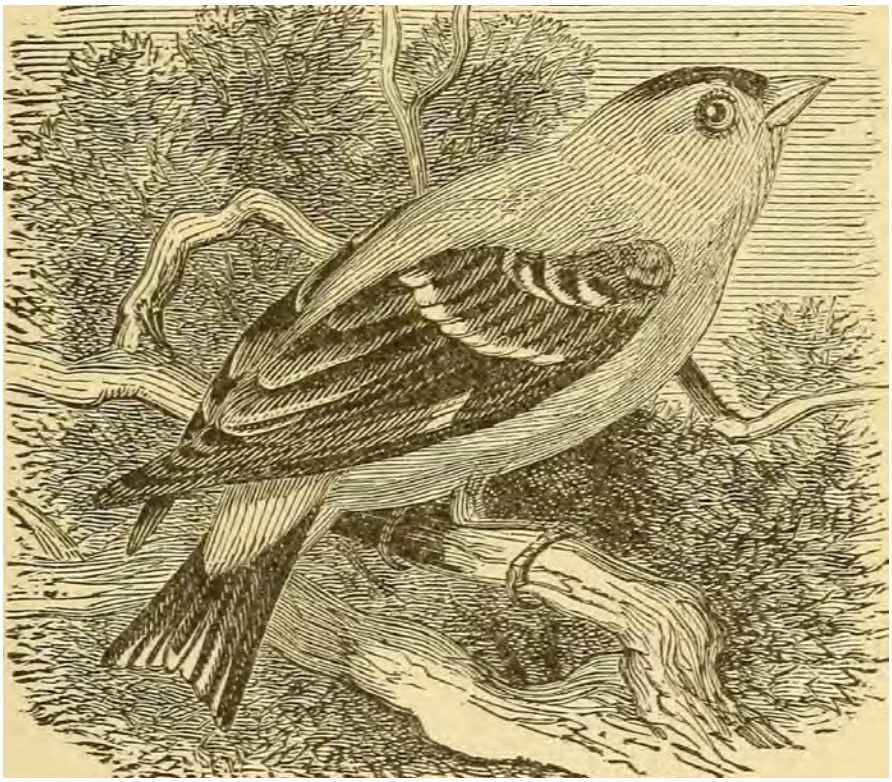
An illustration from Bailey's Birds through an Opera Glass.
See the entire book at
https://tinyurl.com/y7jbaxvf



Florence Merriam Bailey feeding gulls. Oregon Historical Society Library

References

Cevasco, G.A., Harmond, R.P., & Mendelsohn, E.I. (2009). Modern American Environmentalists: A *Biographical Encyclopedia*. Baltimore: Johns Hopkins University Press., doi:10.1353/book.3349

Chapman, F.M. (1916). Florence Merriam Bailey. *Bird-Lore*, 18:142-144.

Florence Merriam Bailey Papers, 1865-1942. Smithsonian Institution Archives, Washington, D.C.

Kofalk, H. (1989). No Woman Tenderfoot: Florence Merriam Bailey, Pioneer Naturalist. College Station, TX: Texas A&M University Press.

Maynard, L. W. (1935). The Audubon Society of the District of Columbia. Records of the Columbia Historical Society, Washington, D.C. Historical Society of Washington, D.C. 35/36: 98–108.

Oehser, P.H. (1952). In memoriam: Florence Merriam Bailey. *The Auk* 69:19-26.

Ruth, J.M. (2007). Florence Merriam Bailey – Ornithologist. *New Mexico Ornithological Society Bulletin*, 35: 97-100.

St. Lawrence County, New York Branch, American Association of University Women. Women of Courage, Florence Merriam Bailey: Pioneer Naturalist.

Wolfe, J. (2019). Overlooked No More: Florence Merriam Bailey, Who Defined Modern Bird-Watching. *The New York Times*, July 17, 2019.

Women in Nature - Florence Merriam Bailey. *Journal of the Sierra College Natural History Museum*, (2015), vol. 6 no. 1.

Florence Merriam Bailey.

Evelene Spencer: "Fish Evangelist"

April Gregory, National Fish and Aquatic Conservation Archives, U.S. Fish and Wildlife Service and Heritage Committee Member

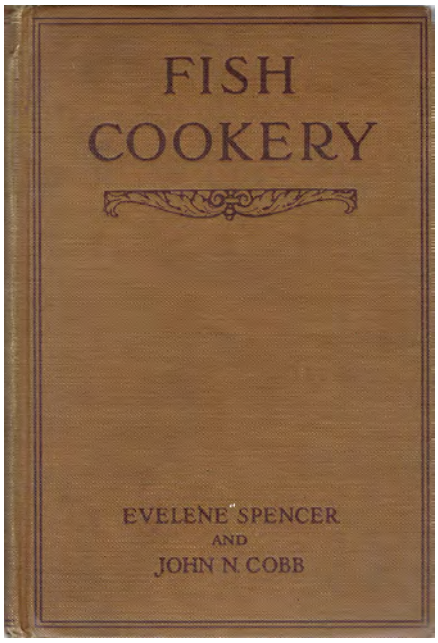
The United States Bureau of Fisheries (USBF) once employed a celebrity chef—a chef to whom people would flock to watch live demonstrations at large department stores. This was before the days of television and before there were countless cooking shows. Although television was invented in 1927, it was not in most American homes until the 1950s. This chef was employed during the roaring 20s, when folks went to live plays, concerts and shows. The USBF hired her to promote eating fish, and she was famous among housewives. Her official title was "Fish Cookery Expert for United States Bureau of Fisheries," and she earned the nickname "Fish Evangelist."

Evelene Armstrong was born in 1868 in Toronto, Canada. In 1888, Evelene moved to the United States, where she married Joseph Spencer in Portland, Oregon. Joseph was also from Canada, but details are scarce about why each had moved to the United States. They had two daughters - Adrienne Spencer, born in 1890 and Evalyn Spencer, born in 1893. According to the U.S. Census records, in 1910 Evelene was 42 years old and the manager of a restaurant. Her skills in the kitchen surely must have lent themselves to her employment as an outreach specialist and cook by the USBF, where she worked for about 7 years.

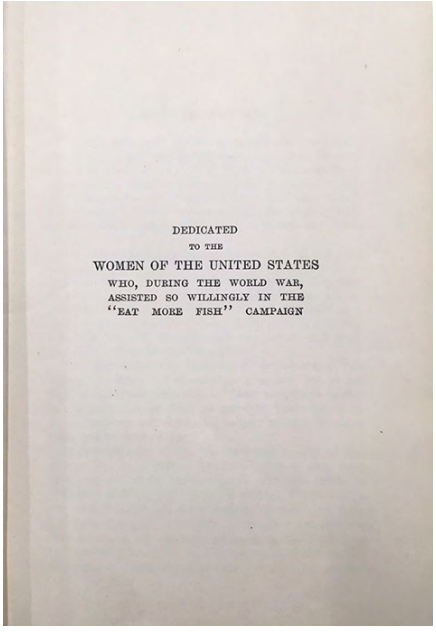
Evelene created quite the name for herself over the course of her career. She was widely known and respected in not only the United States, but also Canada. Evelene worked for the USBF from at least 1915 to 1922. An early reference to Evelyn Spencer working for the USBF appears in a paper published in the No. 44 issue of the *Bureau of Fisheries Economic Circular* in 1919 with Evelyn listed as the author, entitled "*Groupers, fishes you should try, with recipes for them.*" She was part of the USBF's nationwide campaign to encourage people to eat more fish to save other foods for WWI efforts. Evelene traveled around the country giving cooking demonstrations and encouraging people to eat other species besides those that were widely accepted by developing recipes with substitutions such as devil fish for crab and squid for oyster. Saving red meat for the soldiers overseas became a national priority, and Evelene helped to provide alternative recipes using fish that were often overlooked as a food source.

Evelene is most well known for her book, "*Fish Cookery, Six Hundred Recipes for the Preparation of Fish, Shellfish and Other Aquatic Animals, Including Fish Soups, Salads and Entrees, with Accompanying Sauces, Seasonings, Dressings and Forcemeats.*" She co-authored the book with John M. Cobb, the Director of the College of Fisheries at the University of Seattle. Published in 1921, it is still available for sale online. The book is much more than a listing of recipes. It includes mathematical ratios for gauging cooking times for the size and thickness of the fish. It has information on how to tell how fresh a fish from the market is and how to fillet a fish. The introduction speaks to the culture of eating across the States—how one type of fish may be a highly prized entrée in one area, while it is a trash fish in another part of the country—which still holds true today.

Recipes in *Fish Cookery* range from bass, shrimp, trout and salmon to eel, shark, roe and turtle. The authors explain that they were trying to educate people about un-



Fish Cookery book cover.
Courtesy of the National Fish and Aquatic Conservation Archives/USFWS

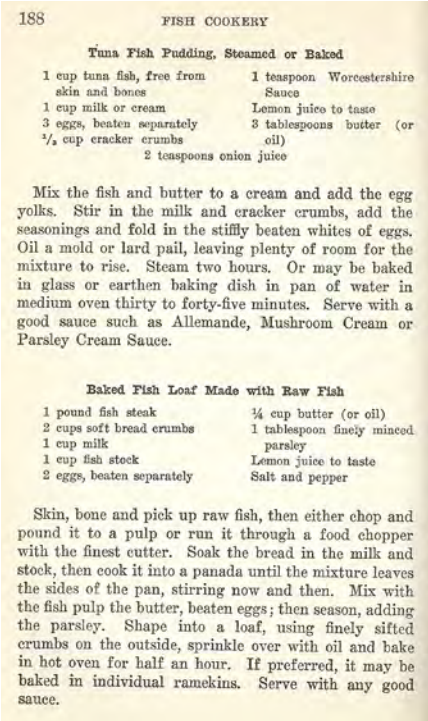


Fish Cookery dedicaton page.
Courtesy of the National Fish and Aquatic Conservation Archives/USFWS

conventional food sources that may be widely available to them in their areas, often times for a much more economical price. A lasting trademark from the book that helped propel Evelene to cooking stardom was her baking method, coined the "Spencer Hot Oven Method," which is a healthier method of oven frying of fish and chips than deep frying. The book was a success, and Evelene traveled the country giving cooking demonstrations at department stores and answering questions. Her oldest daughter, Adrienne, often accompanied and helped Evelene. By 1923, she had moved back to Canada to work for the National Fish Company doing similar work—promoting the consumption of fish. Evelene also became well known in Canada for her fishery-touting ways.

Evelene Spencer passed away in January of 1935 in Hamilton, Canada, at age 67, but she left a lasting mark on cooking. A section of her obituary that ran in the Toronto paper reads,
For many years Mrs. Spencer had rendered great service to the Department of Fisheries and the Canadian fishery industry through her lectures and demonstrations… Her work proved of immense benefit to the fishing industry of the Dominion in promoting the consumption of fish by Canadians. Mrs. Spencer was as well known in the United States as in Canada, and in the American Union she carried on campaigns to promote the consumption of fish, which met with wide response. She was well known to the authorities at Washington, where her work on behalf of the Government was valued highly, and as a result of which she was invited to do similar work in the Dominion.

Evelene's impact continues today. The "Spencer Hot Oven Method" is commonly used today, just under a different name—roasting or baking—and is still popular for being a healthier low-fat alternative to frying.



188 FISH COOKERY

Tuna Fish Pudding, Steamed or Baked

1 cup tuna fish, free from skin and bones
1 cup milk or cream
3 eggs, beaten separately
½ cup cracker crumbs
1 teaspoon Worcestershire Sauce
Lemon juice to taste
3 tablespoons butter (or oil)
2 teaspoons onion juice

Mix the fish and butter to a cream and add the egg yolks. Stir in the milk and cracker crumbs, add the seasonings and fold in the stiffly beaten whites of eggs. Oil a mold or lard pail, leaving plenty of room for the mixture to rise. Steam two hours. Or may be baked in glass or earthen baking dish in pan of water in medium oven thirty to forty-five minutes. Serve with a good sauce such as Allemande, Mushroom Cream or Parsley Cream Sauce.

Baked Fish Loaf Made with Raw Fish

1 pound fish steak
2 cups soft bread crumbs
1 cup milk
1 cup fish stock
2 eggs, beaten separately
¼ cup butter (or oil)
1 tablespoon finely minced parsley
Lemon juice to taste
Salt and pepper

Skin, bone and pick up raw fish, then either chop and pound it to a pulp or run it through a food chopper with the finest cutter. Soak the bread in the milk and stock, then cook it into a panada until the mixture leaves the sides of the pan, stirring now and then. Mix with the fish pulp the butter, beaten eggs; then season, adding the parsley. Shape into a loaf, using finely sifted crumbs on the outside, sprinkle over with oil and bake in hot oven for half an hour. If preferred, it may be baked in individual ramekins. Serve with any good sauce.

Recipes from Fish Cookery: Tuna Fish Pudding, Steamed or Baked.
Courtesy of the National Fish and Aquatic Conservation Archives/USFWS

Author's note

Looking back through our agency's early fisheries history proves it to be predominately comprised of male Caucasian employees, with the notable exception of the iconic Rachel Carson, who didn't enter the scene until the 1930s. Of the few women employed throughout those early years, from 1871 forward, most worked in the accepted roles of secretary, egg picker, or as in Evelene Spencer's case, cook. In the early years, there are women's names that appear as contributors and co-authors to research papers, but they are few and far between, and we know little about them.

While Evelene Spencer did serve in a traditional woman's role as a cook, she appears to have had great freedom in her career—making her own choices, scheduling her tours and becoming a well-respected expert in the field by her peers and decision-makers in both American and Canadian governments. Despite her role in the kitchen, Evelene was no ordinary cook. Through experimentation, she fine-tuned her cooking methods via various comparative methods she tested. One such method was even named after her.

I chose to highlight Evelene for her successful career and her enduring legacy and to bring awareness of history repeating itself. The USBF tasked Evelene to promote eating fish to save red meat for the soldiers. Today, our agency is promoting eating invasive species to help save native species. Although during Evelene's time Silver flying carp, for example, had not yet been introduced to the United States, she does have an entire section of carp recipes, which I'm sure could be substituted for an invasive carp, proving once again, that recipes can be timeless.

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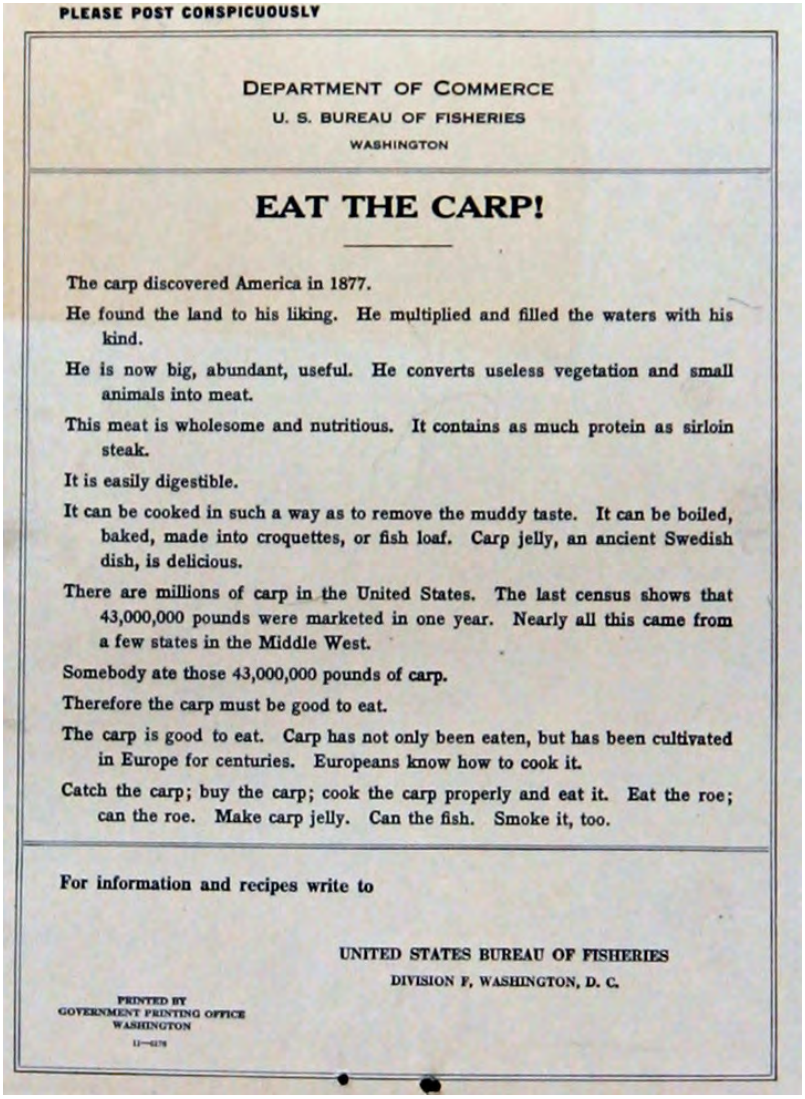
The Department of Commerce used this poster as part of its "Eat More Fish" campaign to encourage Americans to eat a wide variety of fish.
Courtesy of the National Fish and Aquatic Conservation Archives/USFWS



PLEASE POST CONSPICUOUSLY

DEPARTMENT OF COMMERCE
U. S. BUREAU OF FISHERIES
WASHINGTON

EAT THE CARP!

The carp discovered America in 1877.

He found the land to his liking. He multiplied and filled the waters with his kind.

He is now big, abundant, useful. He converts useless vegetation and small animals into meat.

This meat is wholesome and nutritious. It contains as much protein as sirloin steak.

It is easily digestible.

It can be cooked in such a way as to remove the muddy taste. It can be boiled, baked, made into croquettes, or fish loaf. Carp jelly, an ancient Swedish dish, is delicious.

There are millions of carp in the United States. The last census shows that 43,000,000 pounds were marketed in one year. Nearly all this came from a few states in the Middle West.

Somebody ate those 43,000,000 pounds of carp.

Therefore the carp must be good to eat.

The carp is good to eat. Carp has not only been eaten, but has been cultivated in Europe for centuries. Europeans know how to cook it.

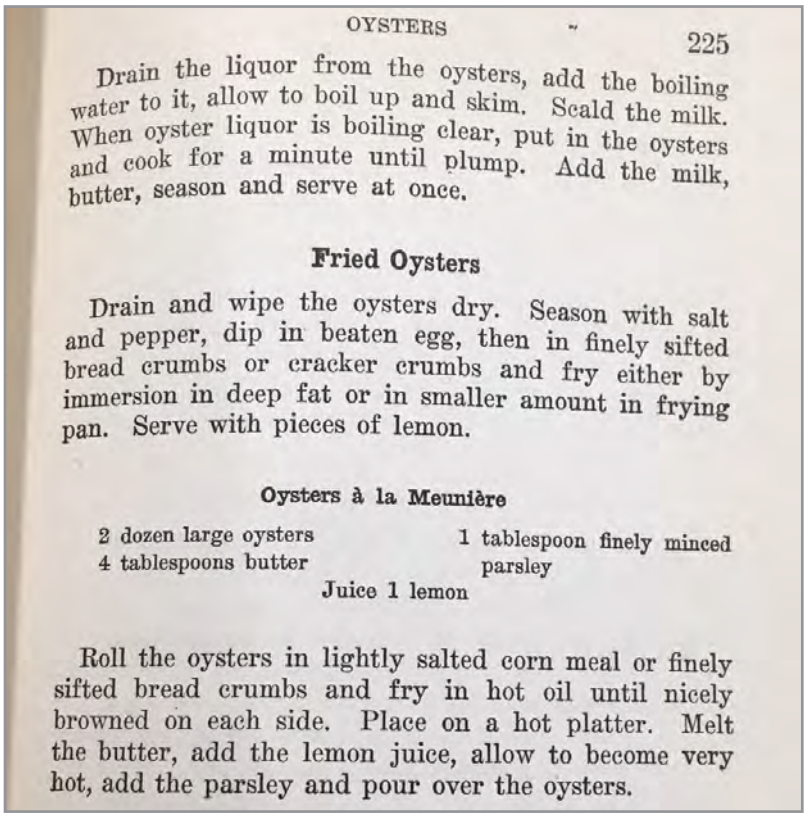
Catch the carp; buy the carp; cook the carp properly and eat it. Eat the roe; can the roe. Make carp jelly. Can the fish. Smoke it, too.

For information and recipes write to

UNITED STATES BUREAU OF FISHERIES
DIVISION F, WASHINGTON, D. C.

PRINTED BY
GOVERNMENT PRINTING OFFICE
WASHINGTON

Eat the Carp! poster: This 1911 Bureau of Fisheries poster promotes carp as a delicious fish to eat. The carp was introduced to American waters in 1877 and spread quickly.
Courtesy of the National Fish and Aquatic Conservation Archives/USFWS



OYSTERS 225

Drain the liquor from the oysters, add the boiling water to it, allow to boil up and skim. Scald the milk. When oyster liquor is boiling clear, put in the oysters and cook for a minute until plump. Add the milk, butter, season and serve at once.

Fried Oysters

Drain and wipe the oysters dry. Season with salt and pepper, dip in beaten egg, then in finely sifted bread crumbs or cracker crumbs and fry either by immersion in deep fat or in smaller amount in frying pan. Serve with pieces of lemon.

Oysters à la Meunière

2 dozen large oysters
4 tablespoons butter
1 tablespoon finely minced parsley
Juice 1 lemon

Roll the oysters in lightly salted corn meal or finely sifted bread crumbs and fry in hot oil until nicely browned on each side. Place on a hot platter. Melt the butter, add the lemon juice, allow to become very hot, add the parsley and pour over the oysters.

Courtesy of the National Fish and Aquatic Conservation Archives/USFWS

References

Department of Commerce, Bureau of Fisheries, *Economic Circular No. 44*, Issued March 21, 1919, "Groupers: Fishes You Should Try/ With recipes for cooking them." Text by H.F. Moore, Deputy Commissioner, Bureau of Fisheries. Recipes by Miss Evelyn Spencer, Bureau of Fisheries.

Ancestry.com. *Newspapers.com Obituary Index, 1800s-current* database on-line. Lehi, UT, USA: Ancestry.com Operations Inc, 2019. https://www.ancestry.com/search/collections/61843/

Spencer, E, and Cobb, J.N. (1921). Fish Cookery: Six hundred recipes for the preparation of fish, shellfish and other aquatic animals, including fish soups, salads and entres, with accompanying sauces, seasonings, dressings and forcemeats. Boston: Little, Brown, and Company.

The Tie that Binds: How the Suffrage Fight Helped *Rosalie Edge* Advance Conservation

Dyana Z. Furmansky, Author and Journalist

In an old suitcase that belonged to the radical conservationist Rosalie Edge (1877-1962), I found dozens of intimate family letters written to her and by her, over the course of her long life. As Edge's biographer, I read these letters searching for clues into what might have thrust this snooty, middle-aged matron out of the cloistered and cushioned world of New York high society, into a field she knew nothing about: the preservation of hawks and eagles from mass slaughter, by bounty hunters and anyone who believed it was their civic duty to exterminate them.

Of course, Edge couldn't have known anything about raptor preservation; the 'field' didn't yet exist. She created it in 1929, as founder and sole embodiment of the Emergency Conservation Committee, through her pamphleteering, strident consciousness raising and action. Hawk Mountain Sanctuary in Kempton, Pennsylvania, which Edge established in 1935, can be considered the birthplace of the first major campaign to end the killing of predatory birds. Hawk Mountain's establishment is just one of Edge's "Committee's" many achievements. In the years during which she was the nation's preeminent conservationist, she picked up where the naturalist John Muir had left off, and began what the marine biologist Rachel Carson completed, with Carson's publication of *Silent Spring* in 1962. Rosalie Edge was so effective at preserving wild species and their habitats, that in my book, she deserves to be recognized as the very godmother of the modern environmental movement.

The Edge letter collection informed an important part of the story I tell in my book, *Rosalie Edge, Hawk of Mercy: The Activist Who Saved Nature from the Conservationists*. Another important element was provided by something I found buried under the neat bundles of envelopes. It was a white sash bordered in golden yellow stripes that are still rich in hue. The fighting words 'Votes for Women' call out from the long white space between the stripes. Spotting her suffragist sash among letters from loved ones, I figured it had been a prized possession.

Edge wore this sash across her white dress as she marched with thousands of like-uniformed suffragists through the streets of New York, demanding to be counted in the national plebiscite. After a long and bitter fight, the suffragists achieved their goal a century ago, when three-quarters of the states ratified the 19th Amendment on August 18, 1920. "The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any state on account of sex," had finally become the law of the land.

When I give presentations about Edge, I often show her suffrage sash. I say that this narrow strip of cloth binds together two of the 20th century's great progressive causes—the women's movement and the environmental movement. Parading with it emboldened the suffragist Rosalie Edge to later become, as she was described in *The New Yorker*, "the most honest, unselfish, indomitable hellcat in the history of conservation."

In about 1913, when Edge joined the New York state campaign for women's right to vote, the suffrage battle was entering its last heated phase. After about 40 years of comparatively mild activism, it had taken on a now-or-never intensity. Edge rose swiftly in the ranks, serving Cary Chapman Catt's New York Woman Suffrage Party as secretary-treasurer and a pamphleteer. Edge, who had never been shy, or un-opinionated, hit her stride as a blistering soapbox speaker. She walked miles going door to door, leaving behind the latest incendiary NYWSP pamphlet that she, as a writer for the organization's highly persuasive 'publicity council,' had penned.

Prior to joining the suffrage movement, she had "known nothing of organization, publicity, policy or politics," she wrote. The NYWSP changed her. But shortly after the suffrage movement came to a successful close, Edge drifted away from other women's causes, and instead spent the next several years falling ardently in love with birds. Central Park was where she went to watch them, and started her first bird list. Meanwhile, her organizational skills slumbered.

The plight of eagles in particular aroused her to her new cause, one that had few allies when she took it up, and none willing to go public. Raptor conservation would consume the rest of Edge's life, and would gain a new generation of adherents. Accustomed to the barrage of verbal abuse she had withstood while campaigning for women's voting rights, Edge was inured to the insults and condemnations of prominent bird conservation leaders, all of them male, who opposed her efforts to save hawks and eagles. The National Audubon Society, which to Edge was Bird Enemy Number One, castigated her as "a common scold;" at least one man on the board hissed that she was that dread thing, "a suffragist."

Nevertheless, Edge persevered. She had learned "to stand up at meeting," as she put it. She knew how to call out her male betters when they were wrong, which in the

conduct of nature conservation of her time, meant refusing to recognize the need to save all wildlife. As her influence widened, Rosalie Edge became the bitterest foe of organizations besides the Audubon Society. Her ladylike demeanor was a bit of a ruse to disarm men. "Her sword is a folding one," wrote the *Christian Science Monitor*. "It can fit into an evening bag, or even a delicate glove."

If the Audubon Society was Enemy Number One, Enemy Number Two, according to Edge, was a federal agency called the Bureau of Biological Survey. It was created in 1896 to keep a census of the nation's economically beneficial wildlife; added to this mission about 20 years later was taxpayer-funded extermination of wildlife deemed to be non-economically beneficial, like predatory species at the top of the food chain. Owing in large part to the steady stream of damning revelations at the Bureau of Biological Survey in her widely read pamphlets, the Bureau was reorganized out of existence in 1939. Certain functions of the Survey were combined with those considered salvageable in the Bureau of Fisheries. The resulting agency, ordered by Interior Secretary Harold Ickes who was Edge's ally, is called the U.S. Fish and Wildlife Service (Service).

Though Edge significantly helped shape the new Service mission, she still complained of its lack of urgency in ending the wide-scale predator poisoning programs, among other things. Dissatisfaction did not prevent her from fervently pointing out new problems. One arose in 1948, when a scientist informant told Edge that certain golf courses in Westchester County used the pesticide dichlorodiphenyltrichloroethane (DDT). "The destruction of birds is appalling," she wrote to New York's Fish and Game Department. An investigation by federal wildlife agents confirmed her suspicions of the cause. It was not until 1962 that the accumulation of lethal evidence against DDT made their way into Rachel Carson's powerful and eloquent call to action, *Silent Spring*.

Edge recognized that what she had learned as a suffragist honed her passion and tenacity to wage long-running conservation battles. "These skills were taught under the leadership and through the friendship of such women as Cary Chapman Catt, May Garret Hay, Ruth Morgan, and others," she declared. "Women for all time to come must ever be grateful" to them, she wrote. And, it is thanks to the hellcat Rosalie Edge that conservation activists owe a debt of gratitude to them as well.

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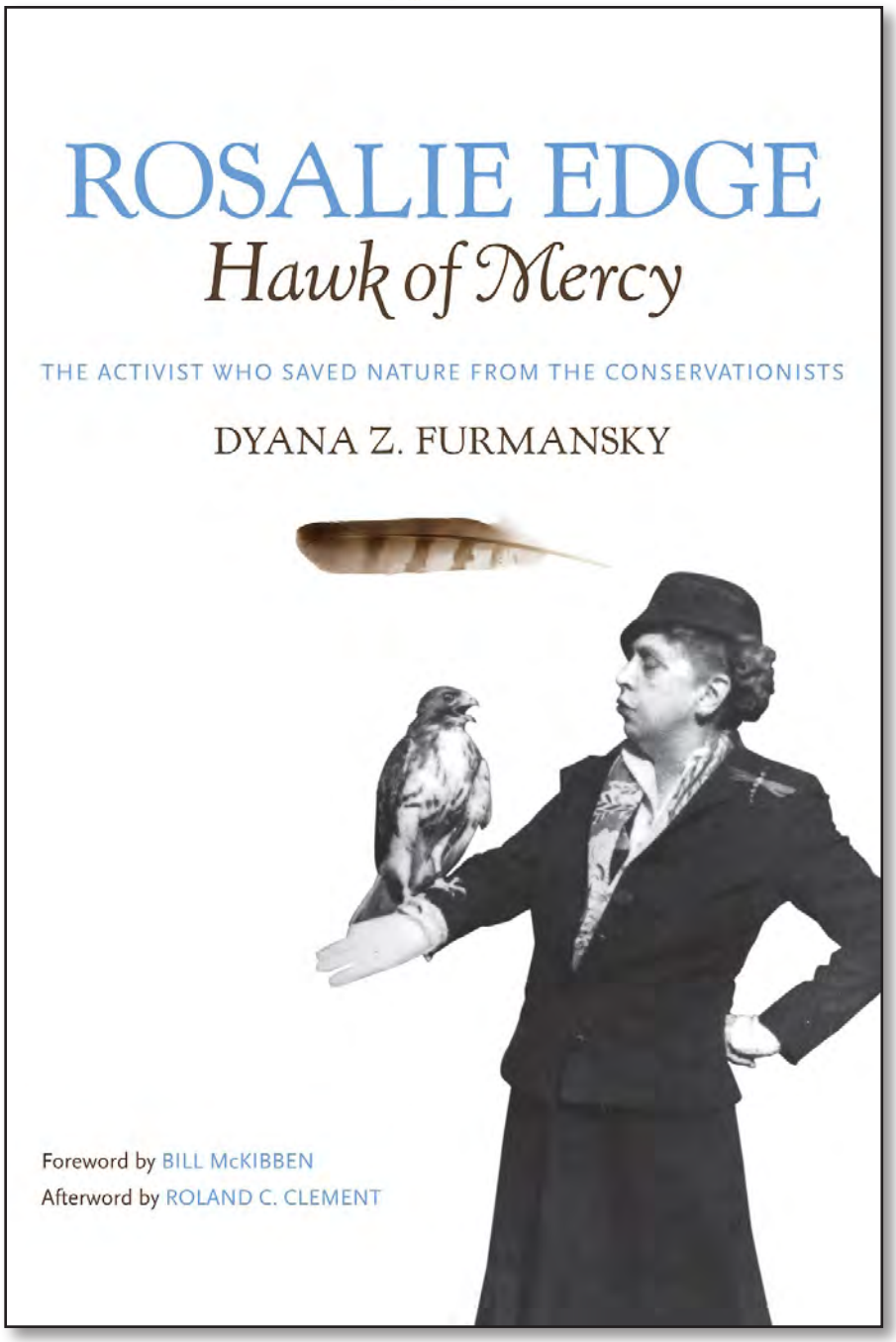


Rosalie Edge at Hawk Mountain Sanctuary.
Courtesy of Hawk Mountain Sanctuary

"The time to protect a species is while it is still common."
—Rosalie Edge

Witness to Wilderness: The Legacy of *Mardy Murie*

Steven Chase, Director, National Conservation Training Center, U.S. Fish and Wildlife Service

Writer's preface:

I met Margaret (Mardy) Murie in 1997 and was able to have several conversations with her over the next few years. I tried not to be a fanboy and actually engage her in discussion about the work I was doing and the conservation challenges that we faced. She was always inspiring and exciting to talk with. Why wouldn't she be, as one of the first truly active U.S. Fish and Wildlife Service (U.S. Bureau of Biological Survey back then) spouses, and then an influential member of the conservation movement for decades. Always the mentor, even though she barely knew me, Mardy made sure that I understood my responsibility to work to protect wild places, and she encouraged me to take joy in that work and in life. At her memorial service, the crowd afterwards even got Jim Kurth and I to dance, and that was some spectacle, indeed.

When I was invited to write something about Mardy Murie for this publication about women in conservation, I drafted a piece that I found was too similar to the many biographical sketches that are out on the internet. Not happy with the draft, I thought back to an essay I wrote for the proceedings of the Murie Legacy Symposium in 2000 at the Murie Ranch in Moose, Wyoming. The essay chronicles a trip I took to Arctic National Wildlife Refuge that was inspired by my earlier meetings with Mardy. I updated the essay to reflect the time that has passed, and I hope it conveys to you the gifts of inspiration that Mardy Murie and her beloved Arctic gave me and the American conservation movement.

On a bright autumn day in the Arctic, bush pilot Don Ross began his final approach to land on a narrow strip of broken limestone along the Sheenjek River. I rode in the front seat alongside Don. My friend Mark Durham, a long-time climbing partner and New York investment banker, sat in the back seat. A tricky landing on an uphill slope ended at the base of a steep 2,500-foot ridge. Don turned the plane 180 degrees, rolled down the hill a few yards, and cut the engine. I climbed out of the Cessna 185, hauled out my pack, and greeted Conservation Fund Alaska Representative and old friend Brad Meiklejohn and his partner Jo Fortier, a nurse practitioner, from Eagle River, Alaska. They had hiked west into the valley of the Sheenjek from the even more isolated Coleen River region the day before, having already spent a few weeks out in the bush.

As quickly as we had unloaded the plane, Don was ready to go. He throttled up the engine and taxied down the slope to turn around and gun it up the hill for takeoff—much easier now with a light load. The blue and white plane lifted off and made a quick right turn, away from the ridge towards the valley. A full day of flying still awaited him, stretching the length of the Arctic National Wildlife Refuge. The next stop was Arctic Village to pick up John Tremblay, a carpenter and climber from Randolph, New Hampshire, and Nancy Shea, executive director of The Murie Center in Moose, Wyoming.

As the hum of the aircraft engine vanished, we were enveloped by the silence of the Arctic. In less than 24 hours, we had come 5,000 miles from the congested and hectic East Coast to one of the last remaining places of wilderness on the planet. I thought of the cliché where the intrepid wilderness travelers watch the plane, their last hope of rescue, vanish over the hill. Regret and anxious questions follow, and sometimes, panic—What the hell have we done? We're 250 miles north of the Arctic Circle. There are brown bears here. We are alone. But, the words of Edward Abbey inspired and encouraged us as the 185 climbed over the west ridges of the valley. Abbey said we are drawn to wilderness "... because we like the smell of freedom, we like the smell of danger."[1] Bold reasons, but not as potent as our dreams.

Some would wonder why we had chosen the Sheenjek Valley over the many other backcountry adventures that Alaska offers. Mark and I were often asked that question back East and were even queried a few hours before we landed. On our flight up to Ft. Yukon earlier that day, a young Alaska Native was onboard, with us and we talked with him as we made the 90-minute flight from Fairbanks. We explained our plans, and he nodded when we said we were going to the Sheenjek. He had never been there, but his grandfather had. "Not many people go there now" he said, "not much reason to."

For us it was different. While we had all been in wilderness in the past, including many wild places in Alaska, this trip had additional incentive for us. We were on a pilgrimage. This was the place where Margaret E. (Mardy) Murie, known by many as the "Grandmother of American Conservation," had spent a summer in 1956, along with her husband Olaus J. Murie and young researchers Bob Krear, Brina Kessell and George Schaller, who has become one the world's great field biologists and a friend to me. I had recently met Mardy Murie in her home in Moose, Wyoming, and we had talked about Arctic National Wildlife Refuge and the Sheenjek.

Sheenjek River Valley, Brooks Range. Steve Chase/USFWS

These conversations had primed and inspired me to take the trip.

The Murie's Sheenjek Expedition, coaxed on by Starker Leopold, Lowell Sumner and New York Zoological Society President Fairfield Osborn, kindled the support necessary to protect the Arctic National Wildlife Refuge in the early 1960s. Their adventures in this vibrant wilderness are described in wonderful detail in Mardy Murie's book *Two in the Far North*. The notion that a place like the Sheenjek would be the catalyst for a major milestone in American conservation history made us wonder what made it special. The Muries had spent several years in the 1920s in the Arctic wilderness, during all seasons. They knew the Brooks Range well, and yet it was this river, this valley, this "place of enchantment,"[2] that had made the difference for the establishment of Arctic National Wildlife Refuge. We wanted to find these special characteristics, experience them as the Muries did, and thus understand how this little-known place on the south slope of the Brooks Range held the power to sway the politics of preservation in a resource hungry country. We traveled in 1999.

It was complex terrain, the scale so grand it easily deceived the uninitiated. What looked like a short distance in the crisp arctic air was often many miles. Our topographical maps painted intricate patterns of contour lines, waterways and nameless peaks. The flat valley was a diverse landscape of river channel, ponds, bog, grass, tundra, sand and gravel. A vivid mosaic of all shades of orange, yellow and red, framed with patches of green and brown showed bright in our eyes. The Sheenjek had a main channel and then a number of other courses, which intertwined across and through gravel banks and sandy flats and dunes. Further upstream, patches of overflow ice could still be seen even as autumn's chill began to grip the land. The limestone peaks of the Brooks Range surrounded us. Long slides of ancient limestone, flat gray in color, spilled down from high ridges to the east and west. Millennia of freeze-thaw cycles left the rock shattered, abrasive and sharp to the touch, leaving very little to tempt us rock climbers. The ancient rock holds fossils of primitive sea creatures leaving sign of other geological times and climates. The alpine terrain was steep and covered with huckleberries, cotton grass, mosses and lichens that yielded to long limestone scree fields higher up. To the north, the ramparts of 6,750-foot Double Mountain rose more than 4,000 feet above the river. Farther up this valley, the high country of the continental divide was bright with freshly fallen snow.

We lived with hawk owls, caribou, wolves and grizzly bears. Through sight, sound and smell, wildness permeated our every moment. Not a single sign or sound of man existed, only the wind. Our first camp was on a bank above the river in a place

where the Sheenjek doglegs for a quarter mile to the west before heading south again. We pitched our tents just above the river at the base of a wide drainage area made up of spherical rocks, gravel, lichen and grass. Each spring this area was the passage for large flows of snowmelt from the 5,000-foot ridges above. At this time of year, the water was confined to a small brook that came down from the high country through a deep ravine, only to disappear under small boulders worn smooth by thousands of years of contact with water and ice. We were very concerned about our impact on the land, and it seemed right that our tents were pitched in an area that was scoured annually by the hands of nature.

As we pitched our tent, Jo, who was wearing a tee shirt that read "Birding in the Boondocks," pointed out a bird perched on top of a spruce 50 yards from our tents. It was a northern hawk owl, a fairly common bird to the Alaskan boreal forest, but one rarely spotted in the lower 48. With the face and torso of an owl and the long tail of a hawk, the hawk owl is usually seen on treetops, in the daylight, scanning the landscape for its favorite meal of red-backed voles or mice. Olaus Murie painted an Alaskan northern hawk owl in much the same situation that we observed, and we mused that our hawk owl must be Olaus welcoming us to his most favorite place.

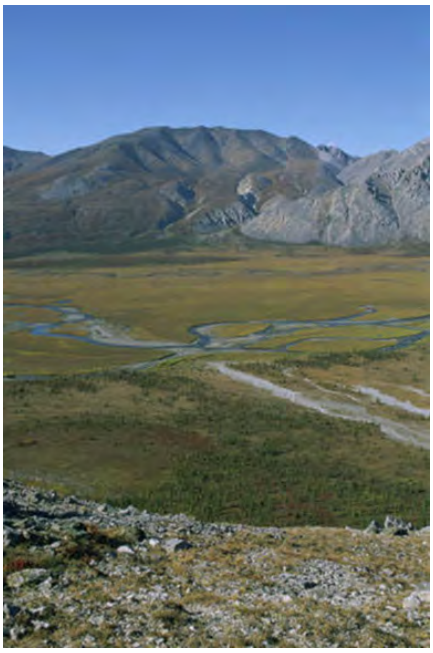
In *Two in the Far North*, Mardy Murie described their feeling of ease in this place: "It was easy here to forget the world of man, to relax in this world of nature. It was a world that compelled our interest and concentration and put everything else out of mind. As we walked over the tundra, our attention was completely held by the achievements of that composition of moss, lichens, small plants, and bright flowers..."[3]

We set up our kitchen in grove of black spruce a hundred yards up the river. We hung our food bags on the stubs of limbs, broken years before by the thick layers of ice that covers the ground most of the year. We hoped that the victuals were sufficiently odorless to keep our brown bear friends from getting curious; else our meals would vanish with the swipe of a claw and the flash of teeth.

The next morning, we made a foray to the east, up the ridges and peaks that beckoned to us. We started uphill on rocks that turned to steep slopes filled with blueberries and cranberries, separated by narrow terraces. By the end of the week, our clothes became stained with the sweet juice of berries as we walked through and sat in what seemed like oceans of the sweet fruits.

Perched 800 feet above the valley on a small lawn of rocks and grass, we stopped to watch a large brown bear alternately gorging on berries and swimming in a small pond. We later speculated that this bear may have been what John had heard treading through our camp early that morning. Sleeping out in his big blue sleeping bag, John had slid further into the warm cocoon, motionless, as he thought he heard the soft pads of four feet walking by him. If this bear had come through camp, he minded his own business just as we planned to mind ours, so we were grateful. "Strip away the day-to-day clutter and clamor of our civilized lives," as writer Doug Peacock once observed, "and there is a grizzly deep down in all of us, at home in the wild."[4] While we watched that bear, I snapped a picture of Brad sitting contemplating the grand view—mountain, tundra, river, sky. That picture has become iconic to the Arctic National Wildlife Refuge, and for 20 years has been seen in dozens of papers, magazines and web pages.

The next day we hiked to a bluff near the head of the Sheenjek, a place described in *Two in the Far North*.[5] We headed out in the direction of the two hills we could see from our camp. They rose a few miles to the north, at the throat of the valley. The walk involved tussock hopping, pulling through puckerbrush, crossing a stream, and after a final short climb, we sat in soft moss atop the southern bluff. Perched like a sentinel 500 feet above the river, the hilltop gave us a 360-degree view of this grand wilderness. We savored Swiss chocolate, cold Sheenjek River water, and the incredible panorama. It was as if we were in an arctic gallery, where each place our eyes took us to was a different original



Sheenjek River Valley, Brooks Range. Steve Chase/USFWS

canvas painted with a palate of tundra, rock, river, and sky. To the north was the pass leading to the headwaters of the Kongakut River. To the west, a long valley rimmed with high peaks led to the East Fork of the Chandalar River. To the east more mountains and the wild country of the Coleen River. Below us, the braided twists of the glacier-fed Sheenjek ran clear among wide gravel flats, while the soaring crags of Double Mountain eclipsed a portion of the deep blue arctic sky. I wondered whom beside us and the Muries had sat in this same spot? The Indigenous people have used this valley as a route for hunting trips in the Brooks Range for thousands of years, and we could easily envision a Gwich'in caribou hunting party resting at this very spot, content beneath the midnight sun.

As we packed up to head back to camp, Brad was busy eyeing a topo map, planning a circuit route around Double Mountain. Like the wilderness visionary Bob Marshall, Brad was compelled to walk over every bit of the land that his body would allow. He quickly found Jo and John game to join him, and they were off. We lingered to watch them quickly drop down to the river, cross the wide braids of the Sheenjek, and then climb steadily up a long scree slope to vanish onto high alpine meadows beyond.

Sheenjek River view from north of Sheep Mountain. Steve Chase, USFWS

Tired of tussocks, the rest of us headed back to camp along the river. The sandbars were filled with fresh wolf tracks as big as my hand, and fresher grizzly tracks twice as big. Our four-legged friends liked following the river too, although we doubted they had problems with tussocks. Had we been hiking with the Muries at this point, we would have paused as Olaus prepared to make a casting of the finest of the tracks, making their passage a timeless one, in plaster. Lacking the tools to do just that, we walked on quietly, leaving our lug-soled tracks with theirs. The main channel ran swift and clear, with the occasional backwater curling off to the east or west.

Occasionally a quick call was made to that unseen brown bear before we crested a gravel bank. For the last mile, we cut back towards the mountains and had another bout with the tussocks, finally reaching the comparative ease of walking on the limestone scree near camp. Back at camp, we made dinner, and waited for the marathon hikers to show up. The Bob Marshall Club[6] finally stumbled into camp after midnight, with nearly 30 miles under foot that day. They told us stories of crossing the long floor of the valley without a flashlight, stumbling through tussocks, wading streams and figuring every bush they came upon was another hungry grizzly bear.

The next day we all took different routes. Mark, Nancy and Brad headed off to climb a peak across the valley to the west. John grabbed his fishing gear and started working his way along the river. Jo and I started up the steep ridge southeast of camp. Again, the weather was remarkable, with bright blue skies, no clouds, and a moderate breeze. After climbing about a thousand feet, I decided to hang out for a while. Jo went on, and I sat with binoculars, camera, some food and a book.

My observation point was a little shelf of grass and moss perched above a gray outcrop of rock. Nearby, I found what seemed to be a very old leg bone of some large creature, probably a caribou. It looked like it had been carefully placed there, but in reality, it had probably been there for many years. It was very heavy for a bone and seemed petrified. I thought about throwing it in my pack, but winced at that notion. I thought of the responsibility to minimize the impact we had on this fragile place, and it seemed that the best place for this bone was here, where it had been for unknown generations, not on my bookshelf at home. I gently placed it back just where I had found it.

I sat for hours, alternately reading and watching with my field glasses the goings on of the land that opened up before me. I tracked John, as he fished each pool likely to yield a strike. Across the valley, I could spot through the glasses the three hikers, slowly making their way up the

ridges, meadows and ramps towards the final knife-edged ridge and 6,000-foot peak. Between moments of spying on my friends, I shot photographs, ate lunch, and read a cheesy sci-fi novel. The book told the story of an advanced race that easily conquered the earth, ignoring humans and our civilization as irrelevant. It was an interesting theme to read while sitting as an insignificant observer in this immense wilderness. Later, looking back across the valley, I could see the climbers reveling on their peak, the long climb behind them. I was disappointed when I finally decided I must make my way back down the slope to camp. By evening, we were all together again, sitting around our campfire, waiting for darkness and the aurora. These days cleansed us of the shell of civilized living we all have become too used to.

After 5 nights, we headed down to set up a new camp at Last Lake. On the way we crossed wild streams, negotiated miles of tussocks, and tiptoed through serene, small forests of black spruce we never expected to find 250 miles north of the Arctic Circle. We walked steadily and quietly, except for the occasional cheer, as we pulled through thickets, to warn the great bears that the humans were on the move. We traveled on caribou, sheep and bear paths, which were as good as any trails I had hiked in New Hampshire—but more subtle—truly part of the landscape. After lunch on a berry-covered hilltop, we came upon an exquisite little meadow tucked below the valley's eastern rim. It was pristine in every way, 5 acres of golden grass backed by a forest of black spruce, the high country rising beyond and the Sheenjek running past a mile to the west. I know there are probably a dozen meadows of similar characteristics nearby, but this spot seemed familiar yet secret, unremarkable yet sublime. We stopped, dropped our packs, and sat glowing in this place, amidst the splendor of a bluebird day in the Brooks Range.

Mardy Murie wrote about such places in *Two in the Far North*, "This is the value of a piece of wilderness—its absolutely untouched character. Not spectacular, no unique or 'strange' features, but just the beautiful, wild free-running river, with no sign of man or his structures. For this reason alone, the Arctic is worth preserving just as it is."[7]

Further south roared a large creek of icy, clear water, which challenged our rock hopping and fording skills. Brad, Jo and John were able to leap with 50-pound packs the 3 feet between peaked edges of two boulders. The less acrobatic forded cold water, actually a refreshing experience as the temps hovered around 70 degrees. Beyond was a final sea of tussocks to attack as we dropped back down towards the Sheenjek and our next camp.

Past the wet area, we walked down a slope where we could see Last Lake. This was just above the site of the Murie's camp, where they had spent many days and had hosted guests such as Supreme Court Associate Justice William O. Douglas. Soon we could see figures walking up towards us. We were soon joined by Arctic National Wildlife Refuge Manager Richard Voss, Chief Biologist Fran Mauer, and Wilderness Specialist/ Pilot Roger Kaye. We greeted them and headed down to set up camp on a long bench perched above and to the west of Last Lake.

As we cooked dinner, Roger told us about his doctoral dissertation and his deep interest in the work of the Muries in Alaska. "Was there," asked Roger, "an inherent need for wilderness in the psyche of us busy humans? Why did we come to the Sheenjek? Did wilderness feed some inner hunger long buried below layers of civilized living?" We seemed to be good examples of what Roger was trying to get at. Unlike many who visit the refuge this time of year, we did not have rifles and camouflaged clothing; rather we carried binoculars, cameras, and wore the pinks and lime greens of modern mountaineers. Roger was investigating the belief that there is an inherent value in wilderness that does not rely on material-driven values. There is a need in the human species for wilderness. Wild places as refuge from modern society? Of course.

Mardy Murie once wrote of five reasons that man needs wilderness. Each point yields profound benefit to us as a species, be it open space, pristine laboratory, water purifier, playground or cathedral. The only thing she asks us in return, is whether we have "enough reverence to concede to wilderness" the right to exist. To anyone who spends time in this valley, the answer to that question is very clear.[8]

We spent our final days at the Last Lake camp. The fishing was no good in the Lake, but it was a duty to be done nonetheless. John and I tried every form of lure we had, to no avail. As we walked back to camp happy but fishless, eight adult caribou came trotting towards us from the north, heading directly towards our camp. As they took long, strong strides up onto the shelf where we had pitched our tents, they sensed something was amiss. Seeing the yellow bubbles on the ground and the two-legged creatures holding long slender sticks, their forward motion immediately ceased. Without hesitating a second more, they swung 90 degrees right and trotted off to the south not giving us a second thought. Later we watched a wilderness drama unfold as a young moose, which had strayed from his mother earlier in the day, returned. Like a scene from a campy film, each beast ran towards the other in blessed relief that ended in a close discussion and scolding that only a moose would understand.

There were hikes through the mountains to the east, which hid small tarns with resident ducks, whom, for the time being, seemed content despite the seasonal call of migration. We found Olaus' eagle nest perched on a crag on Camp Mountain and discovered Mardy's mossy fairyland in the drainage below the same. I sat under a tarp on the one rainy day reading Olaus Murie's *Journeys To the Far North*, drinking tea with Mark and Nancy, while our Bob Marshall Club members trudged a marathon distance through the rain. We listened to wolves calling through the mist of a foggy and dark arctic night, and we all got up electrified and standing in the mist. That we were witness to wilderness that day is known to only a very few. We felt nourished by our experience, it answered an urgent need that can rarely be satisfied. And, it is this

wild sustenance, like the Murie's inspirational words and actions that will stay with us.

Olaus Murie wrote in *Journeys to the Far North*: "As the first few days went by, I kept thinking about why we two had come back up here. We were both accustomed to living in the northland, and I suppose much of our lives is influenced by environment. And, I think there is another deep-seated impulse—one that is emerging throughout the world—to try and improve our culture. There is in all of us the urge to share beauty and freedom with other sensitive people."[9]

Many have written about the power of place and how people are moved to action when the land, wild or otherwise, comes under threat of development. Wallace Stegner notes these actions are prefaced first by feelings, and then by ideas. He adds that along with these ideas come influential or charismatic figures who tie the ideas together, organize like-thinking individuals, and build political support for a conservation goal.[10] The protection of Arctic National Wildlife Refuge in 1960 is a good example of this equation. All the pieces were there, including wilderness, glorious scenery, abundant wildlife, potential threats of development, and visionary individuals—culminating in a series of events meant to protect the place for future generations. It is a far-reaching story, in both location and time, touching people in places far distant from the refuge over many decades of history.

Mardy reminded me to view the landscape with the eye of a naturalist and to always treat the land with humility and respect. We realize that wild places are part of us, and we to them. They are sacred, especially in this 21st century world. This legacy of feelings, ideas and actions helps us take action to protect what is left.

I was an organizer of the Murie Legacy Symposium in 2000—a gathering that brought together many of those who have been touched by the Murie legacy to meet, talk, and under a blue Wyoming sky, reflect on how their lives have been changed. I have a picture from one of those July days, showing a moment when my 7-year-old daughter greeted 97-year-old Mardy Murie. The glimmer in Mardy's eyes, even then, shows her faith in people to stand for wild places never diminished. Let us celebrate Mardy Murie and all those whom she inspired, share their hope, and ensure that their words and actions continue to inspire us, our children, and our children's children.

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Mardy Murie, 1923.
Courtesy of The Murie Center

Mardy Murie portrait July 18, 1990 at home in Moose, Wyoming
Chuck Manners/Courtesy of JH News

Mardy Murie making camp on Old Crow River, Alaska (1926). The Murie Center

Endnotes

[1] Edward Abbey, *Beyond The Wall*. New York: Henry Holt, 1984 (p. 59).

[2] Margaret and Olaus Murie, *Wapiti Wilderness*. New York: Knopf 1966 (p. 169).

[3] Margaret Murie, T*wo in the Far North*. New York: Alfred A. Knopf, 1962 (p. 339).

[4] Doug Peacock, *Grizzly Years, In Search of the American Wilderness*. New York: Henry Holt, 1996.

[5] See Margaret and Olaus Murie's *Two in the Far North*, page 414. Olaus and Mardy Murie took a several day hike north from Last Lake to the headwaters of the Sheenjek. It seems by the book's description that the "rocky promontory where the river flowed closely under" could well be the bluff upon which we lounged.

[6] I dubbed Brad Meiklejohn, Jo Fortier, and John Tremblay the Bob Marshall Club for the purposes of this essay. Bob Marshall, a prominent founder of The Wilderness Society and an early explorer of the Brooks Range, was legendary for his long-distance hikes in the Arctic. Brad's long-distance hiking experience, exceptional endurance, and many adventures in the Arctic National Wildlife Refuge and other wild places over the past 3 decades rival Marshall's, in my humble opinion. There are few people with more passion and love of this wild place than Brad.

[7] *Two in the Far North* page 421.

[8] John Haines and Thomas LeDuc, *Minus 31 and the Wind Blowing*. Anchorage, AK: Alaska Pacific University Press, 1980 (p. 89).

[9] Olaus J. Murie, *Journeys to the Far North*. Palo Alto, CA: The Wilderness Society/ American West Publishing Company, 1973 (p. 184).

[10] Wallace Stegner, *Where the Bluebird Sings to the Lemonade Springs*. New York: Penguin Books, 1992. These ideas come from Stegner's essay "A Capsule History of Conservation," a fine introduction to American Conservation history (p. 117).

Murie Ranch Historic District, Grand Teton National Park, Wyoming, USA.
NPS

Olaus and Marty Murie in Alaska

The Service Gave the World *Rachel Carson*

Robert K. Musil, Ph.D., M.P.H.,
Rachel Carson Council

Rachel Carson would have been lost to history but for the U.S. Fish and Wildlife Service (Service). At the height of the Depression, Carson needed to leave her Ph.D. program at Johns Hopkins in order to support her family. With academic jobs scarce, she followed the suggestion from her mentor from the Pennsylvania College for Women (now Chatham University), Mary Scott Skinker, that she speak with Elmer Higgins of the U.S. Bureau of Fisheries, later merged into the Service.

Higgins hired Carson part-time, writing radio scripts, and was impressed. He asked her to write a brochure on marine life and, when a full-time opening came up, hired Rachel Carson on August 17, 1936 as a junior aquatic biologist starting at $38.48 a week.

For years, Carson told the story of Higgins' reaction to her draft brochure on ocean life. Higgins rejected it saying, with a twinkle in his eye, "I don't think it will do… Better try again. But send this one to *The Atlantic*." In August 1937, *The Atlantic* published Carson's essay as "Undersea." It caught the eye of Quincy Howe, senior editor at Simon & Shuster. Rachel Carson soon had a contract for her first book, *Under the Sea Wind*.

Carson drew on her Service research and field trips to places like the Bureau of Fisheries Laboratory at Beaufort, North Carolina, to expand "Undersea." In *Under the Sea Wind*, illustrated by her friend and Service colleague, Bob Hines, we follow lightly anthropomorphized characters like Scomber, the mackerel, and Anguilla, the eel, as they struggle to survive amidst the perils and predators of the ocean.

Bureau of Fisheries Laboratory, Beaufort, North Carolina, postcard.

Carson creates a poetic saga with tremendous empathy for these odd creatures. Such empathy marks the core of Carson's environmental ethic—the belief that there is no "other," that all life is intertwined and deserves respect.

Under the Sea Wind was published November 1, 1941 to critical acclaim. But, Pearl Harbor shifted the nation's attention. Carson's first book sold fewer than 2,000 copies. Carson continued her Service work, produced a stellar series on national wildlife refuges called *Conservation in Action*, was regularly promoted, and saved her own writing for free-lance magazine articles.

One topic that intrigued her was research at the Patuxent Research Laboratory showing there might be adverse health effects from dichlorodiphenyltrichloroethane (DDT), the miracle World War II pesticide. Carson had learned from the articles written by her Service ornithologist colleague, friend and birding partner, Chandler Robbins. Robbins, in turn, drew additional information at Patuxent from Dr. Lucille Stickel, who led the technical studies.

Carson proposed to *Readers' Digest* that she write about the potential dangers of DDT. The answer? No. It would take more than 15 years before Americans learned from *Silent Spring* about the pesticides killing fish and birds and harming human health.

DDT was not the only World War II innovation that got a fresh look. Rachel Carson became friends with the oceanographer Roger Revelle,

Chan Robbins at Midway National Wildlife Refuge, 1966. USFWS

Atomic Bomb Testing at Bikini Atoll. Library of Congress

when he headed the wartime Office of Naval Research. Shortly after, Revelle led research on the effects of atomic bombs on surplus Navy ships at Bikini Atoll. Carson reviewed studies on the animals tethered on board, including 200 pigs, 60 guinea pigs, 204 goats, 5,000 rats, 200 mice, and grains containing insects. From that moment, like most of the biologists involved, Carson was deeply opposed to nuclear weapons, nuclear tests and nuclear wastes.

But the war effort also provided positive breakthroughs. World War II required new technologies to explore, map and navigate the seas through which American ships and submarines fought and delivered troops and material. Sonar, radar, bathyscaphes, and more offered an entirely new understanding of the ocean. From her Service desk, Rachel Carson was atop a mountain of scientific revelations. Through her friendship with Roger Revelle, drawing on technical studies led by Navy Lieutenant Commander Mary Shaw, and corresponding with oceanographers, scientists and writers, Carson began *The Sea Around Us*. It changed forever the public's perception of the ocean. A voracious reader since early childhood, Carson read almost everything ever written on the subject, including scholarly articles, scientific studies, reports from environmental organizations, influential books and historical accounts she would find through scouring libraries and used bookstores. She also corresponded with and visited world-class scientists and experts, such as Charles Merriman and Daniel Sears of Yale University. Knowing of Rachel's gratitude for their help at critical moments, her literary executor, Marie Rodell, had Carson's papers sent to Yale's Beinecke Rare Book Library.

Carson's amazing breadth of contacts and her relentless reading and research, matched with poetic prose and empathy, enabled her to draw huge audiences into complex, space age, scientific understandings and back through eons of geologic time. The deep sea had been seen as static and empty; its depths uncharted, unexplored. Rachel Carson wrote, instead, that the oceans were a dynamic new frontier with mountain ranges, deep valleys, moving tectonic plates, eruptions and strange creatures living in impossibly cold, dark and pressurized depths. Most of all, Carson wanted people to know that all life had evolved and emerged from the sea, that all living forms are connected.

Rachel Carson reading to her dog, Candy, at age 5. The Carson Family

When we watch a sanderling dodging the surf, Carson wants us to be in awe that this particular bird was meant to live in this particular spot; it is the miraculous product of eons of evolution. For humankind to fail to see and *feel* this wonder, to believe that we can control nature was for Carson pure *hubris*. *The Sea around Us*—with illustrations by another Service friend, Kay Howe—surged onto the best-seller list and stayed for 86 weeks. *Under the Sea Wind* was soon re-issued, giving Carson her second blockbuster.

Rachel Carson, an unknown scientist, editor and writer for the Service, was suddenly a national treasure. She was able to leave her job, purchase a home on the rocky coast of Maine, and focus on writing. Her next book, *The Edge of the Sea*, was another best-seller. It, too, was written based on Carson's continuing connections to government scientists at the Service, and to field work from Maine to Florida, along

Kay Howe and Rachel Carson at the Main Interior Building. USFWS

the coasts and beaches, exploring tidal pools, birding, and gathering specimens for illustrations with friends from the Service like Shirley Briggs and Bob Hines.

Silent Spring was published in 1962, an immediate best-seller. But this time, in addition to acclaim, Rachel Carson was threatened with lawsuits, smears and corporate-backed denials of science. As with her ocean books, *Silent Spring* was meticulously and widely researched, but even more so, since Carson, and close friends like Marie Rodell, anticipated controversy, backlash and attacks. Her reading, research and correspondence was worldwide; her science backed by a

Rachel Carson and Robert W. Hines seeking snapping shrimp in a sponge, Missouri and Ohio Keys, Florida, May 1952. Rex Gary Schmidt

vast network of prominent allies. Carson, contrary to slightly mythic perceptions of her as a solitary genius, was never alone in her research, writing or public influence. Nor was she when she came under attack.

In the days before social media, it was Carson's vast network of friends and colleagues who stood by her privately and in public. It is how she was able to withstand organized opposition from the chemical industry while convincing a huge audience of the accuracy and importance of *Silent Spring*. Yet Rachel Carson was dying of cancer even as she reached the apex of her influence. She asked her closest friends and colleagues to form an organization to continue her work. It was Shirley Briggs, her office pal from the early days of the Service, who carried on the Rachel Carson Council that continues to this day.

Briggs also took the most iconic photograph of Rachel Carson. It captures her as a visionary, a seer. In October 1945, Carson is at Hawk Mountain with binoculars, seated on limestone rocks in a stylish leather jacket, peering at the horizon. Even in the field notes written that day by this young Service aquatic biologist—an unknown given the chance to explore her fascination with the sea and to offer profound new insights into it—we can see and feel Rachel Carson's great gifts to the world—the scientific mind, the sculpted prose, the imaginative power, and the empathy for all living things connected by eons of evolution. She writes, "Perhaps it is not strange that I, who greatly love the sea, should find much in the mountains to remind me of it. I cannot watch the headlong descent of the hill streams without remembering that though their journey be long, its end is in the sea….and these whitened limestone rocks on which I am sitting – these, too, were formed under that Paleozoic ocean, of the myriad tiny skeletons of creatures that drifted in its waters."

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Rachel Carson watching migratory hawks on Hawk Mountain, Pennsylvania, 1945. Shirley Briggs

Fran Hamerstrom: An Unconventional Life and Career in Conservation

Stanley A. Temple, Beers-Bascom Professor Emeritus in Conservation, University of Wisconsin-Madison and Senior Fellow, Aldo Leopold Foundation

Upon first meeting Frances Hamerstrom (1907-1998), one immediately became aware that she was unconventional. She introduced herself as "Fron" not Frances or Fran. Unconventional also aptly describes her life and career as a naturalist, ornithologist and conservationist.

Born Frances Flint, she spent a privileged childhood near Boston, Massachusetts. Her eccentric interest in wildlife developed at a young age, and as she recalled, "grownups forbade wild pets and tried to squelch my companionship with creepy crawly creatures." She dropped out of prep school and flunked out of Smith College after 2 years because of her self-professed preoccupation with "birds and boys." While there, she was, however, inspired by reading Charles Darwin, Ernest Thompson Seton and Mark Twain.

After she married Frederick Nathan (Hammy) Hamerstrom, Jr. in 1931, the couple went to Iowa State College where she graduated in 1935 with a bachelor's degree in biology and worked with Paul Errington studying pheasants, quail and the feeding habits of birds of prey. A resulting publication, *The Great Horned Owl and its Prey in North-Central United States*, co-authored with Hammy and Errington, won The Wildlife Society's Publication Award in 1940. After graduating, the couple moved to Madison, Wisconsin, where Hammy had been accepted into a doctoral program under Aldo Leopold, the founder of modern wildlife management. In an unprecedented move, Leopold also accepted Fran into his graduate program, where in 1940 she became the first woman to earn a master's degree in the emerging field of wildlife management and the only woman to earn a graduate degree with Leopold. She based her thesis on detailed observations of dominance hierarchies in flocks of black-capped chickadees.

Fran and Hammy graduated and began their lifelong professional partnership working to preserve the greater prairie-chicken (*Tympanuchus cupido*) in Wisconsin after much of the bird's grassland habitat had been destroyed. They settled into an antebellum farmhouse (without indoor plumbing) in the heart of prairie-chicken habitat that became their lifelong home. Fran lived with a menagerie of the wild "pets" she had been denied as a child. In 1949, she became only the second woman employed as a wildlife professional for the Wisconsin Conservation Department (now the Wisconsin Department of Natural Resources). From then until 1972, she was the assistant project leader of the department's Prairie Grouse Management Research Unit.

Fran mentored thousands of traditional and nontraditional students of ornithology throughout her career. She invited them to assist with prairie-chicken research and held training sessions for them in her home. An important component of her long-term studies of northern harriers (*Circus cyaneus*) and American kestrels (*Falco sparverius*) was the training of hundreds of student interns, or "gabboons" as Fran called them. She was a hard-nosed mentor known for delivering effusive praise and harsh criticism, when warranted. Her efforts paid off as many of her gabboons went on to be productive ornithologists and conservationists.

Fran's language skills gave her access to European literature that many less cosmopolitan American ornithologists knew little about. She regularly reviewed foreign language books and articles for professional journals. Her familiarity with European ornithologists gave her a global perspective and many foreign friends and colleagues.

Fran received many recognitions for her contributions. Carroll College, Waukesha, Wisconsin, granted her an honorary doctorate in 1961, and Fran served as an adjunct faculty member at the University of Wisconsin-Stevens Point. The National Wildlife Federation gave her a Special Achievement Award in 1970. She was inducted into the Wisconsin Conservation Hall of Fame in 1996. A lifelong falconer and raptor enthusiast, Fran was highly regarded within the international falconry community. Today, the Raptor Research Foundation gives the Fran and Frederick Hamerstrom Award to recognize an individual who has contributed significantly to the understanding of raptor ecology and natural history.

Fran remained active as a scientist and writer until her death in 1998. Her eclectic bibliography contains scientific articles as well as popular books, including *Birds of Prey of Wisconsin* (1972), a children's book *Walk When the Moon is Full* (1975), *Harrier, Hawk of The Marshes: The Hawk That Is Ruled by a Mouse* (1986) and *The Wild Food Cookbook* (1989). That cookbook landed her a memorable appearance on the David Letterman Show where she amused—and frankly grossed out—the host with her cooking demonstration (https://www.youtube.com/watch?v=Tnq-og4Z_X0).

Her autobiographical books, *An Eagle to the Sky* (1970), *Strictly for the Chickens* (1980), *Birding with a Purpose: Of Raptors, Gabboons, and Other Creatures* (1984), *Is She Coming Too?: Memoirs of a Lady Hunter* (1989), *My Double Life: Memoirs of a Naturalist* (1994), explore the depth and breadth of her remarkable and unconventional life and career, revealing her wittiness, disarming candor and story-telling skills.

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Fran Hamerstrom, shown here with a fox snake, had a self-acknowledged affinity with "creepy crawly creatures" since childhood. Elva Hamerstrom Paulson

An active raptor bander, Fran Hamerstrom is shown here with a trapped broad-winged hawk. Marie Stocking

Fran Hamerstrom practiced falconry with a golden eagle and recounts the relationship in her book, An Eagle to the Sky. Dale Paulson

Brina Kessel.
Courtesy of the University of Alaska Museum Department of Ornithology

Stanley A. Temple, Beers-Bascom Professor Emeritus in Conservation, University of Wisconsin-Madison and Senior Fellow, Aldo Leopold Foundation

Brina Kessel: Pioneering Alaskan Ornithologist

Brina Cattell Kessel (November 20, 1925 to March 1, 2016) was born in Ithaca, New York. She attributed her interest in nature to childhood experiences: "Both my dad and mother had taken ornithology courses at Cornell under Dr. Arthur Allen. They were both interested in birds, and we had feeding stations and things around the place. My dad would take me out for hikes, identifying birds. I guess that's where my love of birds began."

After earning a Bachelor of Science degree at Cornell University in 1947, Brina began graduate study toward a doctoral degree under Aldo Leopold, the founder of modern wildlife management, at the University of Wisconsin. Leopold died shortly after she arrived, but had he lived, Brina would have become the first woman to earn a Ph.D. in wildlife management. She returned to Cornell to work under Arthur Allen at the Cornell Lab of Ornithology, where she studied the European starling (Sturnus vulgaris) and earned her Ph.D. in 1951.

After graduating, Brina moved to Alaska and began a lifelong academic career on the faculty at the University of Alaska. There she conducted extensive pioneering research on the birds of Alaska. However, her early field work on the North Slope was restricted because, at that time, the Department of Defense would not allow a woman to work on the U.S. Naval Petroleum Reserve, which covered much of the area. Outside of that early sexist setback, she studied birds in most parts of Alaska.

Brina received many honors. She was listed in the American Men and Women of Science in 1954, a biographical directory of the leading scientists of the day. The American Association for the Advancement of Science named her a Fellow in 1960. In 1973, she became one of the first women to be elected a Fellow of the American Ornithologists' Union and later served the society as President (1992–1994). Brina received the University of Alaska President's Distinguished Service Award in 1981. "Kessel Pond" is named in her honor at Creamer's Field Migratory Waterfowl Refuge, in Fairbanks. Her extensive archives at the University of Alaska record her experiences as a pioneering woman in Alaskan ornithology.

Brina Kessel (right) and her Ph.D. advisor, Arthur A. Allen (center), examine a Belted Kingfisher specimen.
Courtesy of the University of Alaska Museum Department of Ornithology

Lucille Stickel: Pioneer Woman in Conservation Research

Matthew C. Perry, Heritage Committee Member, Retired, U.S. Fish and Wildlife Service

Although her full name was Elizabeth Lucille (Farrier) Stickel, her close colleagues knew her as Lucille, but to most in the wildlife research community, she was the highly respected Dr. Stickel. She was a pioneer woman in conservation research getting an early start in life under the guidance of her parents in Hillman, Michigan, where she was born on January 11, 1915. She acquired her love of nature near her home, but also with exciting summer trips to Lake Avalon in Michigan and winter forays to Florida (once in a Model T Ford) with her family.

Lucille attended local public schools. At Roosevelt High School, she was active in athletics and in girl scouts. She was adventuresome in early years and had a reputation of climbing to the top of homes and other buildings as an exciting challenge. At an early age, she had a thirst for knowledge and relatives knew she was destined for high academic achievements. She received all A's and B's at Eastern Michigan University (1932-36); after receiving her Bachelor of Arts degree, Lucille immediately enrolled in a Master of Science program in biology at University of Michigan. She completed her Master of Science degree with honors in June 1938, but remained enrolled on a doctoral program there in zoology for five semesters (1938-41).

Lucille Stickel as a girl scout, 1920s.
Courtesy of Carol Frederick (Dr. Stickel's niece)

Lucille, then, temporarily postponed her Ph.D. program, and in January 1941, married William H. Stickel in Washington, D.C. Bill was a fellow University of Michigan graduate student, who was employed by the Civil Service Commission. In 1941, Bill transferred to the Patuxent Research Refuge (Patuxent) near Laurel, Maryland, and worked as a wildlife biologist. Lucille was offered several jobs at Patuxent, including one as an editor, but declined, saying the men with families impacted by the Depression and World War II needed the paying jobs more than she did. In 1943, after spending time as a volunteer editor, Lucille accepted a job as a junior biologist.

In 1943, however, Bill was drafted into the Army and stationed in the Pacific area, mainly in the Philippines. Lucille took the opportunity to return to the University of Michigan and work towards a Ph.D. She had become interested in the dynamics of box turtle populations at Patuxent and used the subject for her dissertation, "Populations and home range of the box turtle, *Terrapene carolina* (Linnaeus)." The value of this remarkable study is reflected in the fact that it continues to be considered one of the longest continuously run population studies of any animal species in North America.

Lucille Stickel in High School sports with two other students, 1920s.
Courtesy of Carol Frederick (Dr. Stickel's niece)

After World War II, Bill and Lucille returned to Patuxent and both received positions as wildlife research biologists. Although they had personal interests in reptile population biology, their focus for official research was on the impact of environmental contaminants to birds. Lucille published her first contaminant paper in 1946, reporting the results of a study using the new pesticide dichlorodiphenyltrichloroethane (DDT). At that early date, virtually nothing was known about the harmful effects of pesticides on wildlife. Early work by Lucille and her colleagues helped form much of the basis for Rachel Carson's groundbreaking book, *Silent Spring*, which in 1962 warned the world about the dangers of pesticides.

Lucille Stickel on top of Natural Science Building, University of Michigan, 1939. Bill Stickel

Lucille Stickel, November 1943.
Courtesy of Carol Frederick (Dr. Stickel's niece)

At that time, biologists did not know what was causing the population declines of several species of birds that feed high on the food chain. In 1969, scientists at Patuxent, working for Lucille, published two papers linking dichlorodiphenyldichloroethylene (DDE), the metabolite of DDT, to eggshell thinning in birds, which resulted in reduced population recruitment. The cause of eggshell thinning is considered one of the most significant findings ever published by scientists at Patuxent.

The classic work of Lucille, her husband, and their colleagues with DDT and other persistent organochlorine insecticides, which began in 1945, gained worldwide recognition, and led to the ban of DDT in 1972. Lucille became Pesticide and Pollution Coordinator, and then in 1973, became Director of Patuxent Wildlife Research Center.

Both Lucille and Bill were known to work long hours for 7 days a week and seldom left the research center. Lucille and Bill traveled to Hawaii for work in the late 1970s. It was obvious to most staff that they did not want to disrupt their activities by going on this trip, which of course surprised many envious subordinates. They traveled to Florida on several occasions with Francis Uhler and other like-minded naturalists. These trips were mainly for plant-collecting and other professional activities.

Bill was often seen on weekends personally controlling exotic plant species with herbicides. He and Lucille were quick to inform colleagues that it was the misuse of pesticides that caused problems in the environment and that safer pesticides, when used correctly, had a place in agriculture and forestry. This approach possibly distanced them from the anti-pesticide persons in the public arena, including Rachel Carson.

The toxic effects of environmental contaminants, especially pesticides and heavy metals, were the main focus during Lucille's career at Patuxent. She and her large team of researchers established techniques and obtained data paramount to the profession that proved to be so effective in understanding concerns in the environment. The techniques used and the data obtained were the factors proving that chemicals were directly related to population declines in many bird populations, including bald eagles.

Lucille was also interested in small mammal populations and wrote technique papers that benefited future population biologists. She knew the need for quality data and analyses. In the 1960s, she took three classes with the USDA Graduate School on statistics, experimental design and gas chromatography. Seeing the value in these classes, she then required all scientists to take refresher classes relevant to their work, which they did, not always willingly.

Lucille and Bill Stickel on a working vacation in Florida, 1950. Francis Uhler

Lucille received many awards including the Department of the Interior's Distinguished Service Award. She was the first professional woman awarded the Wildlife Society's Aldo Leopold Medal and was the first woman to direct a major federal fish and wildlife laboratory. Over the years, she was recognized as the "first lady" of the U.S. Fish and Wildlife Service, a mantle she wore with humility, but also with grace and charm. She received an honorary doctorate degree from Eastern Michigan University in 1970. In 1998, the Society of Environmental Toxicology and Chemistry presented its prestigious Rachel Carson Award to Dr. Lucille Stickel.

While at Patuxent, the Stickels lived in the same modest government house for more than 40 years until retirement in 1982. The Stickels did not want to retire and had told relatives they hoped they could live at Patuxent until they died. The changes in the political climate and attitudes toward the work at Patuxent from leaders in Washington, however, was starting to cause conflict with Lucille. Saddened staff were sorry to see the highly respected Stickels leave Patuxent, and several times at parties, when their names were mentioned, the words from Kenny Rogers' song, Lucille, would inspire a mournful chorus of "You picked a fine time to leave me *Lucille*."

At Patuxent the Stickels socialized with professional friends during holidays, but during most weekdays and weekends kept to themselves and their own projects. Those who shared meals with the Stickels knew that Lucille was a good cook, but it was well known that both she and Bill disliked household chores of shopping and cooking. The Stickels did not own or watch television when at Patuxent nor in retirement living near the mountains of Franklin, North Carolina. Their recreation was reading, observing nature, and collecting data on plants and animals. They loved nature and contributed personal funds to save habitat. Lucille's professional partner and husband for 55 years, Bill Stickel, died in 1996.

Lucille and Bill Stickel after dinner with friends at Patuxent in 1982.
James Fleming

Lucille's profound influence on the field of contaminant research remains obvious today. The 40-plus research scientists she hired at Patuxent have published more than 1,000 scientific papers, chaired many symposia, and authored numerous books in the environmental field. Several scientists, who received guidance from Lucille, went on to leadership roles in the U.S. Fish and Wildlife Service and the U.S. Geological Survey. Dr. Lucille F. Stickel died in a nursing home in Asheville, North Carolina, on February 22, 2007. She was 93 years old and left behind a lifetime legacy of professional scientific research accomplishments that are difficult to replicate.

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Author's Note:

Nancy Coon, Carol Frederick and Jim Frederick provided information for this essay, and their contributions are greatly appreciated.

Lucille Stickel with dog companion, Sharly, in North Carolina, 1999.
Deborah Cowman

The Legacy and Lessons of *Celia Hunter*

Roger Kaye, Wilderness Coordinator, *Alaska Region, U.S. Fish and Wildlife Service*

Celia Hunter's legacy as a tenacious champion of against-all-odds environmental conflicts—and as an inspiring Alaskan conservation leader and mentor—began with the hard-fought campaign to establish the Arctic National Wildlife Refuge.

It was 1957, a decade after Celia and her partner, Ginny Wood, arrived in Fairbanks, having flown war surplus Stinson airplanes up from Seattle. They had been Women's Air Service Pilots (WASPS) during the war, flying bombers and fighter planes from factories to training centers and shipping ports. The P-51 Mustang was Celia's favorite.

Perhaps it was inevitable that the adventurous pair would stay in Alaska. They did some commercial flying and worked in the territory's fledgling tourism industry. "But catering to large-scale tourism was not our style," Celia said. Therefore, in 1951 they, and Ginny's husband Woody, established Camp Denali on the western edge of McKinley, now Denali National Park. Focusing on small-group nature and adventure excursions, it was Alaska's first ecotourism venture.

In the summer of 1974, Celia hired me to help guide camp guests, and it was here that I, like so many before and after, fell under Celia's influence. She surely helped set the direction of my 41-year Fish and Wildlife Service career.

I remember Celia's weekly slide shows about Alaskan wilderness and conservation. She often began by telling guests how she met Olaus and Mardy Murie who were leading what would become a 7-year, bitterly fought national campaign to establish the Arctic Refuge. Celia had been reading Aldo Leopold's recently published *Sand County Almanac*, and with that background, she told me, the Muries' idea for a vast, inviolate wilderness sanctuary inspired her. "We really supported very strongly what they were trying to do," Celia later wrote, "and we started fighting for setting the area aside."

Realizing how strongly Alaska's politicians would oppose the proposed refuge, Celia and Ginny set out to gain Alaskan support. Most notably, in 1960, when Alaskan Senator Bob Bartlett scheduled hearings on the issue in seven communities, intending to show that Alaskans opposed the proposal, the pair sprang into action. The hearings turned out to be a disaster—for the senator. Celia and Ginny had coordinated an effort to get conservation-minded people throughout Alaska to testify, and a substantial majority of testimony supported the refuge.

While organizing support for the refuge, Celia and others saw the need for an Alaskan environmental organization. They founded the Alaska Conservation Society (Society) in 1960 in the log cabin north of town she and Ginny shared. It was Alaska's first statewide conservation organization and the beginning of Alaskan grass-roots environmental activism.

Emboldened by the Arctic Refuge victory, the Society soon took on two other major battles: the Rampart Dam and Project Chariot. The proposal to dam the Yukon River near the village of Rampart to attract big electricity-dependent industry would have created the largest man-made reservoir in the world. It would inundate nearly 11,000 square miles of critical habitat for waterfowl and other wildlife, and 9 Athabaskan villages. With virtually all of Alaska's politicians and President Kennedy in support, the dam seemed inevitable. The Society began and took the lead in what became a national campaign.

At this point, Celia left traditional wildlife conservation advocacy to others while she adopted a new, more holistic environmentalism. At a time when few activists were competent to argue about economics, Celia took classes in the subject

Celia Hunter in Cockpit of P-47 Thunderbolt, Farmingdale Long Island, NY, 1944. Alaska Conservation Foundation

at the University of Alaska. She researched the claims of the powerful dam boosters and largely discredited their economic arguments. An early adopter of environmental justice, Celia also confronted Alaskans with the ethical question of forcing 1,200 Native people to relocate for the benefit of industry. The Rampart Dam became a human rights issue, too. The proposal died.

Project Chariot, the Atomic Energy Commission's plan to use nuclear devises to blast a harbor out of the northwest Alaska coast, also seemed inevitable. However, when Celia and her colleagues discovered the plan, they day-lighted the project's potentially devastating effects on both the environment and the region's Native people. "They thought they could push everybody around, and they suddenly discovered they were up against an informed citizenry," Celia said. As reported by the Alaska Conservation Foundation, which Celia co-founded, she later wrote that it could have been a Chernobyl-scale catastrophe. "It was the feisty intelligence of Celia Hunter," Chariot historian Dan O'Neill later wrote, that brought the national attention that ended the project.

Celia's most controversial and consequential conflict in a leadership role was the campaign to pass what became the Alaska National Interest Lands Conservation Act (ANILCA). She began working at the grass-roots level, then nationally as a member of the Wilderness Society's Governing Council. Recognizing her effectiveness and unsurpassed knowledge of Alaskan issues, the Society made her their executive director in 1976. Thus, Celia became the first woman to head a national environmental organization. The Act passed, protecting more than 100 million acres as national parks, refuges, forests and wilderness.

Celia's life of advocacy ended as it began, with the Arctic Refuge. On December 1, 2001, she was up late writing letters to congressional representatives, urging them to oppose the latest bill to open the refuge to oil development. Some time that night, Celia laid down on the carpet to take a break, perhaps because her 82-year-old body was not up to the demands of her spirit. Ginny found her the next morning and called me and other friends over.

"Celia enabled regular folks to become leaders. She brought out the best in us and made me a broader, deeper person."

—David Foreman, who worked for Celia at The Wilderness Society.

That gathering began the continuing conversation of Celia's legacy. We talked about the big battles she led, the innumerable state and local environmental and human rights issues she championed, and the many awards and honors she received. But it was Celia's personal qualities that made her so effective—and endeared her to so many—that she would most want us to remember, and to learn from.

Debbie Miller, a wilderness advocate and author who credits Celia for "bringing me into the conservation fold," aptly summarized Celia's greatest legacy as "the example she set… the way she persevered, inspired, mentored and motivated." The ripple effect of Celia's influence is huge, Debbie said, "One can hardly imagine how much has been done by people because they were encouraged and empowered by Celia."

Celia was a strong woman as a leader. She did not pretend to be a Washingtonian pantsuit executive type and was more comfortable in an Icelandic sweater and her characteristic long braid. As a leader, she was an unforgettable lesson in the power of grace, humility, and humor in response to bias and criticism. Even when maligned, Celia remained calm and peaceful, never confrontational. Stories abound of Celia laughing, chuckling, even giggling, in the face of cynical opposition. Her ability to joke about opponents and her light-heartedness in dire times gave others the hope they needed. Celia's uncommon ability to listen is part of her legacy. Celia listened, really listened, to those who opposed her as well. Maybe it was the Quaker in her soul.

Celia was raised a Quaker. A colleague who attended Quaker meetings with Celia thought her practice of actively listening to and looking for the good in each person, friend or foe, was a Quaker trait. Perhaps, too, that background explains Celia's intuitive ability to find the talent or interest—the gift, Quakers say—in each person.

One colleague has a story of Celia's mentoring. She was a new school counselor when the contentious issue of whether LGBT language should be added to the school district's non-discrimination policy came up for a vote. Also a Quaker, she wanted to speak for the rights of all students at the hearing, but she was young and had never testified. Nervous, she went to talk to Celia, who passed on her strength, as she did with others. Another person, who came under Celia's wing in the mid-1960s, summarized her mentor's growth, "Justice became what Celia was all about, social justice, environmental justice, Earth-justice."

As we grapple with global-scale change, Celia would want us to remember that we must strive to change more than laws, policies, and the beliefs of others. That is, surely, why she chose to conclude her closeout speech at the Arctic Refuge 25th anniversary conference in 1985 by reminding the audience of "The capacity of each of us to change ourselves, and by changing ourselves, to effect far reaching change in the world around us…".

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Celia Hunter. Courtesy of Virginia Wood

Author's note:

The following friends of Celia contributed to the story: Annie Caulfield, Susan Grace, Cathy Walling, Dave Foreman, Pam Miller, Debbie Miller, Susan Morgan, Connie Barlow, Jim Kowolsky, Sean McGuire, Romney Wood, Deborah Williams, Mary Shields, and Martha Reynolds.

References

Alaska Conservation Foundation (2019). Celia Hunter, 1919-2001, Unpublished manuscript at https://alaskaconservation.org/about/people/history-founders/celia-hunter/

O'Neill, Dan (2007). *The Firecracker Boys*, Phoenix, AZ: Basic Books.

Celia Hunter on a 5-day "ladies only kayak trip" (June 1981) in Pybus and Gambier Bays in Southeast Alaska. Connie Barlow

"Unremarkable," *Helen Fenske's* Unlikely Legacy

Marilyn Kitchell and Jonathan Rosenberg, Great Swamp National Wildlife Refuge, U.S. Fish and Wildlife Service

You've heard this story many times before. A politically and financially powerful agency identifies a high-stakes development project. The proposed site affects a community who doesn't share enthusiasm for the project.

Here, the agency was led by Austin Tobin, the man who authorized construction of the original World Trade Center towers. An autocrat who built the Port Authority of New York and New Jersey into "the most powerful agency of its kind in the world," he was purported to be the "highest-paid public official in the United States except for the President."

The project was an international jetport, the site a swampy, backwoods chunk of land 26 miles west of Times Square in New York City. A homemaker, a mother of three young children with a high school diploma and some professional training as a medical secretary led the community in its fight against the project.

The contrast between the two sides is stark. One had financial, legal, and political means to long outlast the other, working in the name of progress, and the support (outright and tacit) of two state governors. Both the autocrat and the mother were used to getting their way. We know well who was expected to prevail. In a speech at the White House acknowledging the unlikely underdog win, this mother would later say, "Our story is not remarkable, nor unusual at all."

How wrong she was. That this woman with an unremarkable resume and an unremarkable story changed the course of history was quite remarkable indeed.

To characterize Helen Fenske as a homemaker, though, is quite misleading. She was a force of nature, and a force for good. She loved an audience. She had an incredible sense of how things should work and the roles people should play—and her way was always right. She was relentless, and those who ignored her did so at their peril. She was an inexhaustible source of energy. She was like the proverbial dog that bites you in the rear and just does not let go, but at the same time earns your respect. She was an amazing advocate for natural resources and lived that 24 hours a day. In an era largely dominated by men, she was intimidating to many who didn't dare cross her. She loved a good fight and refused to take no for an answer.

In short, she was remarkable.

Over the course of 9 years, Helen led the effort to replace the jetport idea with an even greater idea—one that would establish Great Swamp National Wildlife Refuge and later the Great Swamp Wilderness Area. Four years after passage of the Wilderness Act, it became the first Wilderness designated in the more populated areas east of the Mississippi and in the Department of the Interior.

She had led a national effort to build grassroots support for the Swamp, mastering and directing the roles that ordinary citizens could play in partnership with municipal, County, State, Federal and non-governmental agencies. Key to her success was the involvement of local artists, schools and universities, professors, churches, scouts, small businesses, non-profits, neighbors, friends, children and journalists in the conservation effort. In the end, she outsmarted, outlasted and outmaneuvered one of the most powerful organizations in the world—"the first time that anybody had ever beaten the Port Authority," she would proudly (and rightly) claim. She then turned this education—one that had taught her to channel citizen action in partnership with representatives at every level—into the *starting point* of a long and illustrious career in natural resource management.

As the dust settled on the nation's newest wilderness area in 1968, Helen turned her attention to creating a meaningful role for municipalities in managing natural resources. The Ford Foundation hired her to research environmental activism in other States, and she used her findings to guide the New Jersey legislature to pass a law creating municipal environmental commissions. In 1969, she founded the Association of New Jersey Environmental Commissions to organize their efforts, providing local communities with leadership, education and support to advocate for strong state and regional environmental policy. This group became, and remains, an incredibly effective network to advance conservation issues at the local level, while also generating women leaders for the conservation movement. It marked another significant achievement for Helen's legacy.

Helen Fenske with her children, around the time of the fight to save the Great Swamp. Harriett May

In 1970, on America's first Earth Day, New Jersey established the Department of Environmental Protection (NJDEP), an achievement that Helen helped guide by keeping 1969 voters and gubernatorial candidates focused on the environment. Helen was appointed as an assistant to the first environmental commissioner and served in this role until 1974.

In 1975, Helen turned her sights to the federal level. Appointed as a special assistant to the head of the U.S. Environmental Protection Agency, Helen set out to assure citizen engagement in federal policy. During the 1981 gubernatorial campaign, Helen again fought to focus New Jersey's attention on the environment. When staffers blocked her calls to one candidate, she instead delivered cassette tapes to occupy his time during transport to campaign events. In them, Helen would share her thoughts and point him to key environmental meetings, befuddling staff whom he asked to accommodate these appointments about which no one had told him.

With Governor Kean's election in 1982, Helen returned to the NJDEP, becoming Assistant Commissioner for Natural and Historic Resources. The governor would later say that he preferred to have this "outspoken force for the environment" inside rather than outside his administration, and that her record was "terrific." In this role, Helen was able to orchestrate natural and historic resource protections across the State—chief among them, the Freshwater Wetlands Protection Act of 1987. Its passage became one of her greatest and most lasting contributions to natural resource protection in New Jersey.

In 1990, Helen retired as Acting Commissioner of the NJDEP. In a letter to her successor, she said, "You need to be aggressive and relentless in your pursuit of your goals for the state's natural and historic resources." Never forgetting the power of ordinary people, she then reminds her successor that they will need the assistance of the natural and historic resource constituency to do so.

After retirement, Helen served as a trustee of numerous organizations that sought to benefit from her advocacy expertise. She won the Conservation Service Award, the highest honor that can be bestowed upon a private citizen by the Secretary of the Interior. This award piled up with honorary degrees, Congressional Citations, numerous achievement awards, and a Visitor Center at Great Swamp National Wildlife Refuge bearing her name.

Helen had radically altered the trajectory of New Jersey's conservation achievements, but her impact radiated beyond New Jersey as well. She mentored scores of young conservation leaders, especially women, who took up the reins following her retirement and passing.

In her 1968 White House speech at the invitation of Lady Bird Johnson, Helen said, "Our story is not remarkable, nor unusual at all…. The feeling for nature and beauty by John Browns, Joe Smiths and Helen Fenskes has great depth and meaning. Their effort to keep in touch with the land and their work to preserve it can be creative, inspiring and effective at all levels of government."

Let's hope that Helen was right.

May the John Browns, Joe Smiths and Helen Fenskes within us all aspire to be as 'unremarkable' as she was.

"We realize more than ever that conservation is a continuous battle. A battle to save, and a battle to keep."
–Helen Fenske

Helen Fenske portrait, circa 1960. Bradford Bachrach

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Helen Fenske with the Secretary of the Interior Stewart L. Udall as he arrives for the May 29, 1964 dedication of Great Swamp National Wildlife Refuge. Molly Adams

Helen Fenske at podium, during the 1964 dedication ceremony for the Great Swamp NWR. Molly Adams

Helen Fenske at gala to raise awareness during the fight to save the Great Swamp National Wildlife Refuge. James Staples

Helen Fenske at her desk as Secretary of the Great Swamp Committee of the North American Wildlife Foundation, early 1960s. James Staples

Helen Fenske, 1937 photo taken in the Berkshire Mountains of Northwestern Massachusetts. As one of four children with an ailing father, Helen spent formative years living with an aunt and uncle in Pittsfield, Massachusetts learning to fish, shoot, hunt and trap. These years formed the foundation for Helen's later conservation endeavors. Harriett May

As Acting Commissioner of the New Jersey Department of Environmental Protection, Helen attended a convention in Alaska for all the state environmental protection agency commissioners. The trip included a backcountry fishing expedition, where this photo was taken (circa 1990). Courtesy of the Fenske family

Helen Fenske, Assistant Commissioner for Natural and Historic Resources for the New Jersey Department of Environmental Protection, with Smokey Bear and Woodsy Owl (circa 1980). James Staples

Helen Fenske fishing in Alaska, circa 1990, at a convention with state environmental protection agency commissioners. Unknown

Helen Fenske, Assistant Commissioner for Natural and Historic Resources (New Jersey Department of Environmental Protection) speaking at a parks and open space event, mid-1980s. Unknown

Helen Fenske overlooking the Great Swamp, which she had helped save. M. Peters

Sylvia Earle: A Hero for the Planet

Pete Leary, National Wildlife Refuge System, U.S. Fish and Wildlife Service

Sylvia Earle's accolades as an oceanographer, explorer, author and lecturer often precede her. Her impressive list of accomplishments is a testament to her passion and dedication to discovering and advocating for the natural world. Two of the more notable achievements include setting the women's world record solo dive at 1,250 feet and becoming the first woman to be named Chief Scientist of the National Oceanic and Atmospheric Administration (NOAA). Among her many honors, Sylvia is a *Time Magazine* Hero for the Planet, National Geographic Explorer in Residence and a Library of Congress Living Legend. She holds 27 honorary degrees and has been inducted into the National Women's Hall of Fame and received dozens of other awards. At age 74, she founded Mission Blue/Sylvia Earle Alliance (SEAlliance), a global coalition of more than 200 ocean conservation organizations focused on protecting the ocean.

But Sylvia Earle wasn't always known as "Her Deepness"—she speaks frequently about the challenges of being a woman in the early days of undersea exploration. In 1964, Sylvia joined an international expedition to document the biology of the Indian Ocean. An article about the expedition was titled, "Sylvia Sails Away with 70 Men but She Expects No Problems." Six years later, she saw a notice on the bulletin board at Harvard University and applied for a position to live underwater in the Virgin Islands for 2 weeks. In the usual way she overcame gender bias, she says, "It didn't occur to me that women need not apply." However, the project leaders didn't think that it was proper for men and women to be living together, so an all-male crew staffed the first Tektite program. Sylvia was tasked with leading Tektite II, a team of five women that would live and work underwater (one news article about this project was titled, "Five Gals Face Plunge with One Hair Dryer." The Tektite II experience "changed everything" for her. "You're outside with the creatures and you get to know them as individuals," she stated, "That's what has given me a different perspective than most probably have."

Sylvia has seen a lot of changes since her childhood on the gulf coast in Florida. As one of the first people to SCUBA dive, she saw pristine coral reefs that no human had been to. Seeing the loss of reefs and the declining health of the oceans spurred her to dedicate her life to protecting the ocean, above all else. As Chief Scientist at NOAA, Sylvia felt restrained working within the confines of a government agency. In her resignation press conference she stated, "I feel that I must resign, and as a private citizen, do what I can do with more flexibility, more freedom." Since then, she's been traveling the world taking her message to as many people as possible.

I met Sylvia during her first visit to Midway Atoll National Wildlife Refuge in 2012. I mentioned to her that I also have spent thousands of hours underwater, but in the Navy on a nuclear submarine. She replied, "So not the fun kind." As the refuge biologist, I was able to introduce her to much of the wildlife on the islands. The seabirds on Midway evolved without predators, so are very accepting of human presence. As she did while living underwater in Tektite II, Sylvia took every chance she could to sit with and be a part of the wildlife, rather than just be an observer. She had the chance to meet Wisdom, the world's oldest known wild bird, banded as an adult in 1956. She still talks about Midway and Wisdom and the changes that both of them have witnessed over the course of their lifetimes. I see Sylvia at conferences every once in a while, and she asks for updates from Midway about Wisdom or the nesting short-tailed albatross.

One of the things that impressed me most about Sylvia is her rare ability as a scientist to pull out the simple messages from the volumes of data and complex topics. "No water, no life. No blue, no green." is about as simple as it gets when talking about the importance of the ocean to all life on the planet.

One quality I admire is that Sylvia doesn't dictate the details and procedures of conservation—her most effective tool is inspiration. She motivates people to want to take action, to do something before it's too late. By motivating others, Sylvia facilitated the creation of one of the world's largest marine protected areas, Papahānaumokuākea Marine National Monument. The Northwestern Hawaiian Islands had been protected to various extents by six previous presidents. However, when Jean Michelle Cousteau screened his

Sylvia Earle with President George W. Bush establishing the Papahānaumokuākea Marine National Monument, 2006. Eric Draper

documentary film "Voyage to Kure" for George and Laura Bush at the White House, a talk with Sylvia, who was also present, was the additional motivation needed to give this area immediate and permanent protection. While announcing the creation of the first marine national monument in 2006, Bush said she "sat me down and gave me a pretty good lecture about life." Sylvia stood beside President George W. Bush as he signed the proclamation to create this vast marine reserve. Since then, four additional marine national monuments have been created, making the U.S. Fish and Wildlife Service responsible for the largest areas of protected ocean and submerged lands under any nation's jurisdiction.

Sylvia still travels the planet with her message of conservation and responsibility. Through the Mission Blue/Sylvia Earle Alliance, she promotes areas of special importance as Hope Spots to protect and restore the health of the ocean. At age 84, her motivation for continuing to inspire so many people around the world becomes clear in her quote, "I have lots of heroes: anyone and everyone who does whatever they can to leave the natural world better than they found it."

With a red-tailed tropic bird feather in hand, Dr. Sylvia Earle explains the importance of protecting both our land and oceans to elementary students via teleconference at Midway Atoll National Wildlife Refuge.
Bonnie L. Campbell/USFWS

Nick Zukauskas / USFWS

Sylvia Earle, Midway National Wildlife Refuge. Bonnie L. Campbell

Sylvia Earle and Pete Leary, Midway National Wildlife Refuge. Susan Middleton

Sylvia Earle with marine debris on Midway National Wildlife Refuge.
Andy Collins

Sylvia Earle with Wisdom on Midway National Wildlife Refuge. Susan Middleton

Dr. Sylvia Earle waves as she heads toward her first dive - ever - at Midway Atoll and the first dive together with Wyland. Filming is Cindy McArthur, USFS. Ray Born, John Klavitter, and Amanda Meyer USFWS facilitated the dive.
Leanne Veldhuis/USFS

Mollie Beattie: The Service's First Female Director

Dan Ashe, Association of Zoos and Aquariums

A forester by training, Mollie H. Beattie was nominated by then-President Bill Clinton, and on September 10, 1993, confirmed by the U.S. Senate to be the first woman to lead the U.S. Fish and Wildlife Service (Service). She died, tragically, due to brain cancer, June 27, 1996, at age 49. In just 33 months, she changed the organization, the way it views women leaders, and indeed, the way it views leadership.

Mollie, as she was known to one and all, was born on April 27, 1947, in Glen Cove, Long Island, New York. She earned a bachelor's degree in philosophy at Marymount College, and master's degrees in forestry at the University of Vermont, and in public administration from Harvard University. She worked for state agencies and conservation organizations in Vermont before coming to Washington, D.C., but writer Ted Gup put it best when he said she "was many things, but never a creature of Washington, never a composite of accomplishments and, most certainly, not a public being." In fact, she never even owned a television until she came to Washington, D.C.

She was a skilled and savvy leader. In 1993, conservation was very much a men's profession—more accurately, a sportsmen's profession, especially at executive levels—a reality that the Service reflected clearly. Mollie quickly gave notice that times were changing. In the hallway leading to the director's office, was a portrait gallery of former directors, which at that time, was a homogenous black-and-white composite of middle- to old-aged white men; head-shots, in pressed white shirts, Windsor knots and dark jackets. Mollie chose a color, landscape photo of herself, at Camp Island in Kodiak National Wildlife Refuge, wearing hip waders, holding binoculars, and behind her, a Kodiak bear. If Mollie were alive today, and asked about the photo, she would probably say something like, "Oh my, no! I just loved that photo, and hated the idea of a black-and-white headshot." Make no mistake; it was an object lesson in the use of soft power, and it, like she, forever changed the Service.

Today, there is still a gallery of former directors in that corridor. Since Mollie, however, no director has gone back to black-and-white, and pressed shirts, ties and jackets are clearly a thing of the past.

Mollie was the first Service director to face a Congress with open hostility towards the Endangered Species Act. She defended it ferociously, and simultaneously expanded it, advocating conservation of species by managing entire ecosystems. She set the essential framework for the landmark National Wildlife Refuge System Improvement Act by rejecting efforts to recognize hunting, fishing and trapping as refuge system purposes, and articulating a determined distinction between uses and purposes. She would hate being called a diplomat, but she had a near-magical ability to forge relationships with adversaries.

In late 1995, Mollie was called to meet with Montana's then-senior Senator, Conrad Burns. He was irascible about wolves and grizzly bears, the latter of which he called "goddam griz." He greeted her with a patronizing "hello little lady," but she refused the bait, adroitly turning the conversation to ranchers and how she understood that they were facing disruptive changes and hardship like she had seen with dairy farmers in Vermont. By the end of the meeting, they were talking like old friends, and he invited her to Montana to meet with ranchers, which she did. Upon exiting his office, Mollie said, "I know it sounds strange, but I really like that man." She also liked Don Young, "the Congressman from all of Alaska" who famously waived a fossilized walrus penis (an oosik) at her during her inaugural appearance before the House Committee on Merchant Marine and Fisheries. She won him over too; he was brought to tears during their last phone conversation while she was in hospice, and he sponsored the House legislation naming the Arctic National Wildlife Refuge Wilderness in her honor.

She was like that with everyone. Her purse was heavy with change, and she could not pass a homeless person without dispensing it and wishing them well. And, in those days, there were many homeless people on the streets of Washington, D.C. She loved people and nature with equal passions, and she thrived in the intersection between them.

Certainly, her best and likely proudest moment was when she joined then-Interior Secretary Bruce Babbitt, returning gray wolves to Yellowstone National Park for the first time since the 1920's, an action still unfolding and expanding today.

She adored wolves, but had a more secret passion for coyotes. As wolves were making their post-reintroduction recovery, Montana's then-junior Senator, Max Baucus, summoned her to his office to request authorization for USDA Wildlife Services to control a wolf pack that was denning amongst U.S. Forest Service ranching allotments. The pack had harmed no livestock, so she refused to allow killing any wolves. To relieve rancher pressures, and maybe send a signal back at her, Wildlife Services then killed many dozen coyotes in the area, which angered Mollie. She said,

"When I'm done with this job, I'll hike up there and place a monument to those coyotes who gave their lives so wolves could recover."

Sadly, she died before she could fulfill that pledge.

Mollie Beattie led the U.S. Fish and Wildlife Service in a way that embodied the best sense of the word "leader." She was authentic, principled, visionary, courageous, curious, compassionate and comfortable in who she was and the opportunity she was given. She was not perfect, as demonstrated after one particularly difficult call with a state wildlife agency executive, when she admitted, "I know I'm being a bit petty, but he has earned it!" She left the organization better than she found it. She set a mark for future leaders. She blazed a path for women and other minorities to follow. And they have!

After her death, President Clinton said, "America lost one of its great spirits." That's true in the sense that Mollie is gone, but her spirit lives on in the legions of conservationists she inspired.

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USFWS Director Mollie Beattie releasing wolf in Yellowstone, 1995. USFWS

USFWS Director Mollie Beattie at Kodiak National Wildlife Refuge with grizzly bear in background. USFWS

USFWS Director Mollie Beattie releasing "Hope," a bald eagle at a downlisting ceremony at Blackwater National Wildlife Refuge in 1994. USFWS

The first wolf arrives in Yellowstone National Park (YNP) at the Crystal Bench Pen (Mike Phillips - YNP Wolf Project Leader, Jim Evanoff,- YNP, Mollie Beattie - USFWS Director, Mike Finley - YNP Superintendent, Bruce Babbitt - Secretary of the Interior) Jan. 12, 1995. Jim Peaco/NPS

Mollie Beattie Wilderness Arctic National Wildlife Refuge. Danielle Brigida/USFWS

Our Beliefs Matter: The *Mamie Parker* Journey

Mamie Parker, Former Northeast Service Regional Director and Assistant Director of Fisheries and Habitat Conservation

Our beliefs really do matter. They dictate how we get up, show up and move up beyond our fears. Recently, I reflected on a 40-year conservation journey and captured some of my discovered beliefs to share with you.

First, I believe that women and people of color in conservation are stronger because we had to be. I believe that we are smarter because of our mistakes. I believe that we are happier because we overcame the struggles, isolation and loneliness of being pioneers. And I believe that we are wiser because we have learned from our journey.

More importantly, we learn and grow by accepting help from others. Second, I believe we can't make it without assistance from others: colleagues, mentors and loved ones. My beloved mother and first mentor, Cora "Miss Piggy" Parker, always believed that when we start something, we must have a strong finish. But, there were many moments in life when I felt that I was not good enough, talented enough, strong enough to continue to advance in this profession, deal with the micro aggressions and difficult assignments, and actually survive in this nontraditional profession. However, in most instances, someone was there to push me to the next level with encouraging words and actions.

Of course, additional encouragement constantly came from my mother, older brothers, sisters, relatives, teachers and others in my southern Arkansas community near Overflow National Wildlife Refuge. They all believed—and instilled beliefs in me—that to successfully navigate life's challenges, we must help others, set goals, act on our dreams, overcome fears and take chances, remember our roots and focus on gratitude.

Lastly, I believe that focusing on gratitude is the one lesson that really made a difference in this journey. I have vivid memories of one particular encouragement from a fellow third-grade class member. Being the first little frightened African-American girl in the class, after many generations of segregation and Jim Crowism, I didn't think that I could survive the loneliness, and I just wanted out. This was the first time I realized I was treated differently because my hair and skin were different. Those first days were long and hard, and the struggle was unbearable at times. However, one day, I sat alone during recess showing all signs of sadness, when one of the most popular girls in the class, little Paula, came over and shared a piece of gum. She knew that I was sad and lonely, but she didn't really know why. She said, "Here, try chewing this; it always makes me feel better." That symbolic gesture gave me hope and changed my whole attitude about people who are different and more privileged than me, simply because that moment, that act of inclusion, immediately changed my attitude and that of my classmates. Finally, they started to talk to me in class and play with me at recess. My mother encouraged me to focus on these small acts of kindness and good people like Paula and to concentrate on our gratitude.

I was motivated by the many more forms of support that have come my way over the next 50-plus years and truly believe that classmates, coworkers, employees, supervisors, and leaders, like Jim Warren, Nevin Holmberg, Lynn Lewis, Rick Lemon, John Blankenship, Noreen Clough, Columbus Brown, John Rogers, Jamie Clark, Ron Lambertson, Steve Williams, and Dale Hall, among others, kept me going and still motivate me. I don't want to disappoint them or waste their time, wise counsel and encouragement. I am grateful for the support, and I try hard to pay it forward. I believe that this is the personal debt that I owe other brown girls, women and every individual that choses to ask for or accept my support.

This journey began when a U.S. Fish and Wildlife Service (Service) biologist, Hannibal Bolton, came to the University of Arkansas and inspired me to want to join his family of biologists and other amazing professionals at the Service. Yes, he described the agency as a family, and rightly so. After hearing about his jobs, the great people that he worked with, and the opportunities to learn and grow while working outside, I believed that I wanted a similar work family and job satisfaction. However, when I discovered that the internship was in Wisconsin, I was paralyzed with fear. I initially declined the offer; however, Hannibal's and others' words of encouragement and wisdom helped me overcome my fear. Pioneers, like David Hendrix , Nancy Bannister and Walters Barbara Milne, among others, insisted that this experience would make me stronger and wiser. So, off I went to explore a new culture, a new career and new cause in New London, Minnesota, and Genoa, La Crosse, Green Bay, Lake Mills and Madison, Wisconsin. I learned so much about the devastating impacts

of Polychlorinated biphenyls (PCBs) and other pollutants, other fish and wildlife challenges, and standing partnerships to restore the ecosystem. In addition, I learned about the life of a pioneer in conservation.

Later, a rewarding position at the Columbia, Missouri Ecological Services Office helped me gain a better understanding of the value of state fish and game agencies, stakeholders' interests and citizens' input into decision making. Often, our efforts in the Bootheel of Missouri included work with the agricultural community to protect fish and wildlife resources, and this is where I learned about the importance of listening to those with views that may be different. I will always remember the day that Lynn Lewis called to offer me a job in the Minneapolis Regional Office. The opportunity to get great advice and mentoring, from leaders like Rick Lemon, Bob Krska and supervisors in field offices, and learn more about federal permits and projects in the Great Lakes, and the Big Rivers region, was life changing.

While I loved the work in Minneapolis, going back south was a long-awaited dream that finally came true when we moved to the Southeastern Regional Office in Atlanta. I served as the Deputy Assistant Regional Director of Fisheries and Deputy Geographic Assistant Regional Director in Arkansas, Louisiana and Mississippi. During this time, the Service leadership struggled with an agency-wide reorganization to force a multifaceted and holistic approach to our conservation efforts among the field offices. Working with partners, states and many outstanding employees in my beloved south on restoration and recovery of species, species management and preservation of habitat on national wildlife refuges, fish hatcheries and private lands restoration was a one of those dreams that came true. While I was back to my roots in the south, I realized that a troubled relationship with my boss could be a career derailment. My practicing what Dr. Stephen Covey identifies as the "Cancers of Life—Criticizing, Complaining, Competing and Comparing"—resulted in actions and behaviors that made life difficult for both of us. At the time, I had limited skills and training to navigate through this relationship. Instead, I decided to search for other jobs. We left the south and moved to Washington, D.C., where the Service provided me with some outstanding mentoring and leadership training while serving as the Special Assistant to the Deputy Director and Director. This included some phenomenal self-development training at the National Conservation Training Center. Working in headquarters was some of the best experience—Big Time! While most of my field and regional office experience centered on Ecological Services and the Fisheries program, this opportunity broadened my perspective on the Refuges and Migratory Birds program, International Affairs, among others. Also, I gained a better understanding of the budget development process and interactions with the Department of the Interior and Congress.

Region 5, now the North Atlantic-Appalachian Regional Office, was the next stop on the journey. The regional directorate team believed we had outstanding support for mission-related programs in the region, but we lacked superb programs to maintain and improve employee engagement and morale. We established The Invest in People program with one-on-one mentoring and coaching, mid-level leadership development, and Gallup surveys to measure employee satisfaction and engagement. These sustainable and creative efforts were eventually expanded beyond the region to other parts of the country and to the Service headquarters. This confirms Dr. Stephen Covey's words regarding using your individual circle of influence and watching it grow. As I reflect on my years in that office, I truly believe that the administrative staff, the assistant regional directors, leaders and employees were certainly the key to our success. They were just amazing! Their outstanding work on the Northern Forest, Appalachian Mountains, beaches, bays, coastal plains and the Great Lakes made it less difficult for the Service's first African-American regional director, and I will forever be grateful.

My return to Washington as the head of Fisheries and Assistant Director of Habitat Conservation was a surprise to many, including myself. However, this move was one of the best decisions we made, particularly since I had the opportunity to provide national leadership in the development of the National Fish Habitat Action Plan, a landmark plan to work collaboratively on restoring and protecting fish habitat. It also involved my serving as co-chair of the Aquatic Nuisance Species Task Force. Our first trip to the Executive Office Building of the White House included a briefing on the listing of the snakehead fish and Asian carp as injurious wildlife species. Again, the outstanding work and accomplishments of the Service headquarters staff makes my heart smile. Several years later, the Advanced Leadership Development Program cohort awarded me the Ira Gabrielson Leadership Award as outstanding leader of the year. What an honor, and a big responsibility, to work hard to develop great leaders.

Finally, I believe that we have to pay it forward—stretch ourselves and do what is right and not what is easy. Having spent my formative years in the segregated south, being constantly told by my mother to stay positive, I suppressed a lot of feelings and anger and never spoke openly about the damages of racial biases and discrimination. This approach made it easier for me to avoid the tension. However, reflecting on those bad encounters, what really helped me were mentors to talk with and learning how to deal with it differently. Connecting with individuals who faced the same challenges I experienced made all the difference in the world. Also, to see or hear someone (usually a white woman, professor, supervisor or peer) stand up or speak up when they saw or felt the biases, inappropriate actions or words, made it so much easier.

The Head of Fisheries and Assistant Director of Habitat Conservation position required long hours and an enormous amount of travel, which resulted in neglect of family and friends. In addition, there was no time for self-care. Eventually, I believed that I was no longer able to support those that I was meant to serve, including my leaders, staff, and more importantly, my beloved husband. Therefore, my journey at the Service came to an end.

On my late husband's deathbed, we discussed what my next big dream would look like. Since those first days in Wisconsin, I made a concerted effort to work hard to be known as a professional biologist and conservationist and not a token, a voice or have an advocate for diversity and inclusion. At times, I regret this decision and missed many opportunities to speak out. I know that it is time. I have to share my gifts now, using them to bring the conservation community together to aggressively address climate change, attack sea-level rise, improve resilience and flow mapping, protect riparian forest buffers, restore streambanks, assess stocks, tackle ocean plastic pollution and other challenges with "all hands on deck" approach as one of my mentors, Audrey Peterman, would say.

At this point in life, I have learned more about showing gratitude by giving back. This includes work to encourage others to help us address the climate crisis, particularly in vulnerable and underserved communities, by looking for opportunities to make a profound impact on the lives of women and diverse employees in conservation by working harder on diversity, inclusion, justice and equity. Serving in nominating and governance roles on multiple boards, I recruit and retain diversity. In addition, I stay engaged with the Service family through these boards, including among boards: the U.S. Fish and Wildlife Service Retirees Association, Student Conservation Association, National Wildlife Refuge Association, The Nature Conservancy, Duke University's Nicholas School of the Environment, the Chesapeake Conservancy and the Virginia Department of Game and Inland Fisheries. Further, I assist in conducting Wild STEM (science, technology, engineering and mathematics) workshops throughout the world, where more brown girls, people of color and women have a chance to get exposure to careers in conservation.

In conclusion, our beliefs really do matter. Life has not always an easy journey. Oprah Winfrey and Maya Angelou are my sheroes. Both women have made it clear, in many interviews, that they believe they "would take nothing for my journey." I totally agree. We must focus on gratitude and keep going and growing. Like many women in conservation, I believe that we have struggled with isolation, exclusion, underlying bias, discrimination and the lack of role models. In spite of these barriers and challenges, most of us wouldn't trade anything for the journey, a journey that for me, took me to jobs throughout the country and many places around the world, to a community of problem solvers, to progressive thinkers, and to a family of conservationists. A journey with the help of many mentors made me smarter, stronger and wiser.

If you take time to share, mentor, empathize with and encourage others, the good days will always outweigh the bad ones. And this, I do believe.

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Mamie Parker joined Valle de Oro National Wildlife Refuge's Ariel Elliott and NCTC's Mark Madison and Lois Johnson-Mead for the Service's Martin Luther King, Jr. Day Broadcast, "Working Towards the Dream – Past, Present and Future" in January (see https://tinyurl.com/vzpvlze).

Mamie Parker. Pierre Bahizi

Crystal Leonetti's Story: Healing the Agency from the Inside Out

Kathleen McCoy, Independent Journalist

"Whoever wants that job is crazy!"

That was Crystal Leonetti's reaction when she first heard about a job opening with the U.S. Fish and Wildlife Service (Service) in Alaska.

Crystal was already working for the Natural Resources Conservation Service (NRCS), a federal agency she'd been affiliated with since high school. NRCS was about conserving resources, not regulating them. "The people who regulate our way of living, of surviving and being who we are," she said, "they have had a bad reputation in the villages."

Well, here's a surprise: Crystal ended up taking that job herself. She's now in her tenth year as an Alaska Native liaison with the Service. The reasons behind her choice are meaningful and worth understanding.

Let's start with how Crystal introduces herself. She begins in Yupik.

"Waqaa! Ciisquugua. Quyana Tailuci!"

("What's up! My name is Ciisquq. Thank you for being here.")

She continues in English: "My Yupik name is Ciisquq. My mom and dad are Al and Grace Poindexter from Anchor Point. And, my maternal grandparents are Daisy and the late Harry Barnes from Dillingham. My paternal grandparents are the late Chuck and Beulah Poindexter from Anchor Point. I am married to my best friend Ed, and we have 2 daughters, Audrey and Gigi."

Only at the very end, she adds, "I am the Alaska Native Affairs Specialist from the U.S. Fish and Wildlife Service."

To this day, Crystal teaches her agency colleagues to save their job title for the end of any introduction. "Native people want to know your heart," she says. Naming your ancestors means you accept responsibility to behave a certain way, that you will be accountable. This is the seed of trust with any Alaska Native community. She shares concrete stories about the difference it makes in government and tribal relationships.

So why did Crystal take a job with an agency that historically has caused anguish among Alaska Native peoples? First, many people who knew her thought she'd be good at it. During her 16 years at the NRCS, she'd earned the title of peacemaker between tribes and her agency. With such widespread encouragement to take the job, she sought advice from elder Larry Merculieff.

"As elders do, he had a completely different thought process," she said, smiling. "He asked, 'Do you wonder why Mother Earth is crying?'"

Crystal found his question frustrating; she had her own answers. But, he continued. "People don't take care of Mother Earth because they don't respect themselves. In turn, they treat others badly. We have to work on respecting and loving ourselves first, in order for Mother Earth to heal. And the Fish and Wildlife Service needs to heal from the inside out."

He never told her to apply for the job. Instead, he suggested she go somewhere quiet, somewhere where she could stop thinking. "An answer will come to you," he promised.

So, she sat beside the ocean near her home in Anchor Point and did as he said. She stopped thinking. After a time, when she climbed back up the hill from the sea, she was calmed by a sense of deep peace. She had her answer.

"I am going to apply for this job," she told herself. "And if I get it, I am going to pour my whole heart into it." She succeeded, becoming the first Indigenous woman to ever serve as a U.S. Fish and Wildlife Service Native American liaison.

Crystal entered the agency optimistic that by 2009, racism was waning before a tide of open-heartedness, of growing tolerance and acceptance. And, indeed, she found right actions, if not always-right results.

Crystal Leonetti, Yupik, USFWS Alaska Native Affairs Specialist, shared Akutaq (pronounced Ah-goo-duck) at a 2016 Alaska Migratory Bird Co-Management Council meeting in Anchorage. She learned to make the dessert from her mom, who learned from her mom, and was handed down from ancestors. Traditionally, it is made with frozen berries, caribou or seal lard, and wild greens. Sometimes, whitefish is added to provide protein.
Sara Boario/USFWS

Crystal Leonetti in St. Paul, Alaska, 2017. Lisa Hupp/USFWS

She describes an early meeting at which Native liaisons from various agencies were called together to give advice on forming tribal consultation policy. Clearly, a good result.

But, "Everything we said was immediately dismissed, thrown away, passed over," she said. "I had never been treated like that before. I was in shock." A bad result.

Her first few years at the agency were like that. None of it was overt, she said. "It was graceful, in a way." She'd be greeted with warmth, with, "Oh, it's so nice to see you…." Then she'd share her expertise, her training, her education as a way to build a relationship with tribes and Alaska Native people. To no avail: "It was like I was just filling a space for a few minutes, and they'd forget all about it when I left the room."

But, eventually, attitudes and responses began to change. And, Crystal had lessons to learn, too. She came to appreciate the work of her colleagues, to understand their roles (not all regulatory) were focused on conserving resources. She saw that the agency and resource users share this value, and that, particularly in Alaska, they recognized the interconnection between people and the land.

Plus, there were important breakthroughs. Crystal was approved to bring to the Service the first ever Alaska Native Relations training she'd experienced with NRCS. In it, elders teach a history that begins long before Vitus Bering ever spotted Alaska. Students learn how diverse Native groups are, how rich they are in arts, food, dance and lifeways. Her colleagues' reaction was electric: "People were like, 'Why haven't we had this before? This is amazing…"

So, Crystal and the agency's chief law enforcement officer approached the regional director, requesting permission to make the training more broadly available. He endorsed the idea, even making it mandatory. The agency has 600 employees in Alaska. Twice a year Crystal leads 40 of them through the Native relations program. She's confident it makes them more comfortable and more aware as they approach tribal groups to discuss wildlife management.

Crystal Leonetti, dancing.
Patricia Schwalenberg

"I view my job as educating my colleagues," she said. "So many of the mistakes we've made in our history are from not knowing. My colleagues are not malicious. They don't mean to do harmful things to Native people. They just don't know; they don't understand their impact."

Keeping that awareness in daily thinking has changed policies. It became the springboard for better relations in an important federal and tribal co-management council for migratory birds. "Now, traditional knowledge is treated with the same importance as the Western science and the academia and the published papers," Crystal said. "Conservation happens, and it happens in a respectful way so the subsistence community is not harmed."

And, very significantly, twice now, the U.S. Fish and Wildlife Service has issued formal apologies for historical actions that harmed Alaska Natives.

The first, in 2017, acknowledged injury to Aleut families evacuated by Service vessels to an abandoned fish cannery at Funter Bay on Admiralty Island in 1942, 6 months after the United States declared war on Japan. They stayed 2 years; 47 people died.

"For loved ones lost, and for internees who suffered from hunger, coldness, and illness, I am sorry," Jim Kurth, the agency's acting director at the time, told a gathering on St. Paul Island.

More recently, two agencies—Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service—jointly apologized for historical policies that forbade spring harvesting of migratory birds, a nutritional necessity for Alaska Natives after winter's depleted food stores. Many hunted illegally, and suffered emotional, physical and legal consequences.

In their 2018 apology, the agencies wrote, "We recognize your tenacity, your brave vision, and your resilience in the face of the insensitivity of the past harvest regulations…We ask your forgiveness…"

Crystal's contributions, and the powerful work of her colleagues, are manifest; from the inside out, the agency is healing.

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Crystal Leonetti. Lisa Hupp/USFWS

Crystal Leonetti. Lisa Hupp/USFWS

Retiree News

The FWS Retirees Association Welcomes Retirees and Retirees-in-Training

Jerry Grover, Board Member Emeritus and Heritage Committee, At-Large Retiree

U.S. Fish and Wildlife Service (Service) retirees who cared deeply about the mission gathered to create the non-profit U.S. Fish and Wildlife Service Retirees Association (Association). Members stay connected with others who care, maintain friendships with their colleagues, make new friends with similar interests, travel together nationally and internationally, volunteer to support fish and wildlife conservation, help the Service preserve its rich heritage, or otherwise stay connected to the Service.

Retiree Reunion—D.C. Booth Historic National Fish Hatchery and Archives, Spearfish, SD, 2021

A highlight among retirees is the national reunion they host about every 18 months in a variety of locations in the United States. More than 100 retirees and more than 30 Service employees enjoyed the program and field trips in Annapolis, Maryland in November 2019.

Retirees and retirees-in-training are welcome to attend our next reunion the week of June 21, 2021 in Spearfish, South Dakota. The Association selected the site (the home of the D.C. Booth Historic National Fish Hatchery and Archives) in honor and in support of the Service's 150th anniversary on February 9, 2021. In addition to the regular program, which includes a banquet dinner and the Heritage Committee Award, reunions always include a field trip to a Service facility or project area. The Heritage Committee also has a meeting to coincide with the reunion, and attendees are welcome to attend the daylong committee meeting, too.

Helping Field Stations Celebrate Milestone Anniversaries with Matching Grants

The Association awards small matching grants to Service Friends Organizations to help support major anniversary events that promote the rich heritage and mission of the Service.

Supporting Retirees' Volunteer Work with Mini-Grants

Retirees working at their favorite field stations can identify small project needs, and apply for funding to purchase materials or meet other needs to complete a volunteer project at the site.

Learn more about the Association's grant programs and applications at https://www.fwsretirees.org/Support.html.

Retirees enjoying the Greenwalk Walk for Wildlife at the 2019 reunion.
Lew Gorman III

The Work of the Association – Preserving Our Conservation Heritage

Soon after the Service chartered the Heritage Committee, three retiree committee members—Jerry Grover, Denny Holland and Jerry French—established the Association with its 501(c)(3) tax-exempt status. The purposes of the Association are to:

- Facilitate camaraderie among Service retirees and between retirees and the active Service;
- Recognize the rich history of the U.S. Fish and Wildlife Service and the many contributions of its past and present employees;
- Foster the preservation and use of the historical documents, objects and information that illustrate the Service's invaluable contributions in natural resource conservation; and
- Involve the present and past employees in the history and heritage of the Fish and Wildlife Service.

The Association actively supports the Service and the Heritage Committee by supporting the Service's history program, preserving the Service's heritage by conducting oral histories of its employees, identifying historical information and artifacts, and supporting field sites.

Association Membership

Anyone can ask to be listed in a database to receive Association newsletters and other notices. Membership is open to any Service employee or retiree, including their spouses or partners. It is free for the first year. Dues-paying members enjoy voting and other benefits. To learn more about the Association, become a member, or for reunion updates, visit https://www.fwsretirees.org/.

From the Archives

Carson National Fish Hatchery Personnel, National Fish and Aquatic Conservation Archives

A 1976 Fish and Wildlife Annual Report from headquarters, housed at the National Fish and Aquatic Conservation Archives (NFACA), reads, "As of June 30, 1976, the Service's full-time permanent work force of 4,165 included 298 (7.2 percent) minorities and 739 (17.7 percent) women. Of the 1,256 employees GS-12 and above, there were 33 (2.6 percent) minorities and 19 (1.5 percent) women."

In this 1972 photo, also housed at NFACA, is a typical pre-1980s National Fish Hatchery Annual Report staff photo—the single female in the photo is the hatchery clerk-typist. Up until the mid-to-late 1970s, if a woman was present in the staff photo, she almost always served as a clerk-typist, not as a fisheries biologist or superintendent. Though women sometimes assisted with picking fish eggs and feeding fish, their main responsibilities were general office duties such as paying bills, ordering supplies and typing reports. Female fisheries biologists began appearing, more routinely, on personnel payroll records beginning in the late 1980s.

The great courage and dedication of pioneering women in conservation, who overcame great obstacles, blazed the way for younger generations of women. Today's National Fish Hatchery staff photos have women holding any and all of the positions available—from administrative officer to maintenance chief to fisheries biologist to superintendent.

Carson National Fish Hatchery Personnel

The Carson crew, from left to right: "Red" Huffaker, Greg Drais, Oren Reynolds, Don Cairns, Gene Baugher, Don Zirjacks, Karen Gladsjo, and Jerry Hill.

1972 staff photo, Carson National Fish Hatchery, housed at the U.S. Fish and Wildlife Service National Fish and Aquatic Conservation Archives.
National Fish and Aquatic Conservation Archives/USFWS

Biologist holds Texas Wild Rice.
Ryan Hagerty/USFWS

Biologist releases salmon.
Ryan Hagerty/USFWS

Biologist working with Lake Sturgeon.
Ryan Hagerty/USFWS

Oral History Program

Elizabeth (Betty) Losey (excerpts)

Elizabeth "Betty" Losey: "My favorite workplace was right in the middle of a marsh, listening to the birds and inding waterfowl nests and ducklings." USFWS

The U.S. Fish and Wildlife Service (Service) recognizes the rich history and heritage of the Service and the many contributions of employees and others to the mission of the Service. The Service has an oral history program to acknowledge and record these stories. To learn more, visit https://nctc.fws.gov/history/OralHistories.html. The National Conservation Training Center uploads oral history transcripts to the Services' National Conservation Library on an ongoing basis.

Betty Losey was the Service's first known female wildlife biologist. J. Clark Salyer (Chief, Division of Wildlife Refuges, Bureau of Biological Survey, from 1934 to 1961) recruited Betty in 1947. Excerpts of Betty's oral history follows. To see the full transcript, visit the Service's National Digital Library at https://digitalmedia.fws.gov/.

INTERVIEW WITH ELIZABETH LOSEY

BY MARK MADISON AND GEORGE GENTRY

MARCH 15, 2003

MR. GENTRY: Let's give some information to identify the tape. Give today's date and where we're at and that sort of thing. Today is March 15.

MS. LOSEY: Today is March 15, 2003. We're in Melbourne, and have been to Pelican Island celebrating the Centennial.

MR. GENTRY: If you would, say your name slowly and spell it.

MS. LOSEY: Elizabeth Browne Losey. [Spells it out]

MR. GENTRY: Do I dare ask your date of birth?

MS. LOSEY: Oh sure! I'm proud of it. December 25, 1912.

MR. GENTRY: Education? Where did you go to school?

MS. LOSEY: Mount Holyoke for 2 years, University of Michigan AB, and then the School of Natural Resources at University of Michigan with an MS.

MR. GENTRY: What is your work history, starting maybe even before the Service? Everything you did in the environmental or conservation field.

MS. LOSEY: My first job was with the Fish and Wildlife Service. It was offered to me by J. Clark Salyer, II. I was to go up the Seney National Wildlife Refuge as a female Waterfowl Research Biologist.

MR. MADISON: What year was that?

MS. LOSEY: 1947. It was at the San Antonio North American Wildlife Conference.

MR. GENTRY: Tell me a little bit about what you consider to be your area of expertise when you worked for the Service.

MS. LOSEY: Waterfowl management and marsh ecology. Then, I taught those subjects at the University of Michigan for several years on the graduate level.

MR. MADISON: When you joined the Service in 1947 were their other women waterfowl biologists?

MS. LOSEY: Not to my knowledge.

MR. MADISON: You were the first.

MS. LOSEY: Which makes it more outstanding that Mr. Salyer literally stuck his neck out when he asked me if I would do that. I was a fresh graduate with a Master's Degree, and I had gone to our Michigan State Game Division. They knew me very well, and knew my work. I was thinking that was where I'd get my job. And the reply was, "Yes, I know you are well qualified, and sure we'll find a place for you. You can go to conservation groups, you can write for periodicals, you can go to school groups." I told them, "That isn't what I am trained for. That isn't what I want. I am a waterfowl and marsh management person. I did my thesis on it." They said, 'Betty, we can't give you a job like that!' I asked why not. "Well, in the course

of your work you'd be out in the field; it might be necessary to spend overnight wherever you are, and you would have a male associate." So that was that, but it's to my dying regret that I didn't say, 'Well oh goodie'! But I didn't, and I obviously didn't get the job. Then, 2 months later at San Antonio, J. Clark Salyer, II came up to me and asked me would I like to go up to the Seney Refuge as a Waterfowl Biologist.

MR. MADISON: So what was it like when you first went up to Seney as a field biologist?

MS. LOSEY: It was absolutely wonderful, for a lot of reasons… My conditions there were a bit unusual. Where I stayed overnight on the Refuge; where I lived; was what we called the WPA shack. It was where they made the paychecks for the WPA crew. So there was nothing in it but one double iron bunk bed and an old wood burning stove; a trestle table with a bench. And, when I say there was nothing else, I literally mean, there was nothing else! Fortunately, there were a lot of bushes behind the building. And, I wasn't too far from the main garage, which did have a restroom. The Refuge Manager and his wife were kind enough so that, once a week, I went up there and took a bath.

MR. MADISON: So you didn't mind the primitive conditions up there?

MS. LOSEY: I made up my mind that no matter what they threw at me, I was not going to murmur, and I didn't. Because I felt this way; they had opened the door a crack, my foot was in it, and I was going to go in the rest of the way. But I had to laugh because at Christmas, I get a note from C.S. Johnson and he said, "We've got a Christmas present for you! When you come back, you'll see it." But no, he sent me a picture of them hauling an outhouse on the dredge to install at the back of my building. That was my Christmas present. A beautiful outhouse!

MR. MADISON: That was probably one of the best Christmas presents you ever had!

MS. LOSEY: Absolutely! Highly appreciated!

Elizabeth "Betty" Losey (1912-2005) She was hired in 1947 by U.S. Fish and Wildlife Service as the first female refuge biologist. Before her, it was not seen as suitable for a female to work and stay overnight in the field. George Gentry/USFWS

MR. MADISON: Did any of the employees have a hard time adjusting to working with a woman?

MS. LOSEY: None of the males. The fellows took me just as equal. They took me as an equal. We got along beautifully. And also, I was supervising one or two of them, for example, when we did the aquatic inventory. He didn't know the aquatic plants, which of course, I did. So, I was teaching him. He took the instruction beautifully. The only problem I had actually was with the wives. They were not always too happy to know that I was out in the field all day; not overnight, but all day with their husbands. I can remember that we'd be doing an inventory of the impoundment, it would be 4:30 or so, and I'd say, "Well gee, we're almost done; do want to stay a little bit later so we can finish this one impoundment?" They'd say, "Sure!" We would, and then we'd put the canoe on top of the vehicle and drive through the streets of Germfask at about 8 o'clock at night. That was the cause of some of the problems. But, basically, everybody with whom I worked was just marvelous. And, I had the support of Mr. Johnson. And, really, the man who gave me my assignment was Richard Griffith, who was Manager of Habitat Management out of Washington. He was just marvelous. He came out to the Refuge two or three times and would check to see what I was doing and how I was making out. He was great. And, then of course, I was there when Mr. J. Clark Salyer came on one of his annual inspection trips. We kind of shuttered and shivered a little bit, but we managed to survive!

MR. MADISON: So what were you studying up there?

MS. LOSEY: My main assignment was the relation of Beaver to waterfowl management. So, I set up various test areas and really worked hard at it. I am proud to say that it resulted in a publication, which was printed in the *Journal of Wildlife Management*, and at the next meeting of the North American Wildlife Conference, it received Honorable Mention. So, my main satisfaction was the fact that Mr. Salyer must have felt he was justified. That gave me a lot of satisfaction.

MR. MADISON: That's a great story! How long were you up at Seney?

MS. LOSEY: As an employee of the Fish and Wildlife Service, I was only there for 3 years. But then, I got a grant from the University of Michigan to continue my work up there on duck brood behavior. So I was there 2 more years. And, that paper also was published in the *Journal*. Then, the time came when they were going to assign me to Lower Souris, which is paradise for a person that likes ducks. And Merle Hammond was there, as well. But, in the meantime, romance had crept in and I had to make a decision. So, I reluctantly took the romance, although I am very happy I did. But then, they contacted me; and that's where that letter comes in. They asked me if I would take a temporary job out of the Ann Arbor office and work there and produce a layman's version of, oh what was the name, Wilford Banco, who did the Trumpeter swan story. They thought maybe it should be reduced a little bit for more popular consumption. So I worked all winter on that. So that must be what that letter was referring to, because we didn't have Trumpeter swans then, at Seney. Of course, now we do. There is a wonderful population. We've been very successful with that. So then, it's kind of like a full cycle. I was away from that work. I

went into another hobby; well, more that a hobby, I went into the fur trade history of Canada; the Hudson Bay Company. We spent a lot of time, and published a book on that. But, then, my husband died. I still lived in Germfask, which is only 5 miles from the Refuge, so I went back to the Refuge just like a full circle. Now, I'm so happy. I work 3 or 4 days a week and I do research or, we produced that booklet, and we're working on grassland ecology; sharptails and so on. Tracy just told me this morning; 'I've got a job for you when you get back.' It's to work up a mailing list for our celebration on May 24th. So, I don't think I'll run out of work.

MR. MADISON: That is a great story; you coming back there.

MS. LOSEY: Oh, I love it, and it's keeping me young. It really is. I wake up in the morning, and I can hardly wait to get there.

MR. MADISON: Let's go back to the couple of years you worked at Seney. We don't actually have great records for this period. What was the typical workday like as a waterfowl biologist? What did you do?

MS. LOSEY: Well, I had no hours. I mean, as a biologist you do not keep office hours. So, I'd be up at the crack of dawn and carry my packsack and my plotting scope and my binoculars and my camera. And I'd take off and go to any one of these four areas that I had set up for my studies. Then of course, I conducted the waterfowl survey. I was the only one there to do anything. I mean, I had to do everything. We were planting emergents along the edges of the dikes because they needed to be stabilized. See, the Refuge was just being developed back then so we needed to plant the emergents to prevent erosion. I took the aquatic inventory surveys. Oh, and then I surveyed sharptail dancing grounds. That was fun! Get up as early as daylight and then go out and stop and listen. When you could hear a call, you'd make a beeline for it. That's how you discovered them. I think I discovered oh, about 14 lecks, and of course mapped them. My hours were from daylight; I usually or normally would come in about 11 or 12 o'clock and write up some notes or identify some aquatic plants or something. Then I'd go out again about 3 and come back at dark; 7 days a week. Then if we had any "VIP" visitors, I was the one elected to take them around. But it was…

MR. MADISON: You mentioned how you dressed to go to the Rotary. How did you dress every day? You didn't have a uniform then.

MS. LOSEY: No, nobody had a uniform. I had a pretty sharp outfit. It was white slacks and a tangerine blouse and a white jacket. Of course, I had a nice tan; so it looked all right.

MR. MADISON: What about in the field?

MS. LOSEY: Oh, the field? Well, usually 90 percent of the time I was in hip boots and even when I got out of them I kept the straps on so that they'd be handy. I wore 'suntans.' You call them khakis and a khaki shirt. That was it. I lived in that. I don't think I even wore a cap. Maybe I did. I hate hats, never wear them!

MR. MADISON: … In your career, what was your favorite place to be, or favorite experience in the outdoors?

MS. LOSEY: Well, my favorite place was Seney Refuge. Number one; back in those days we had ducks there. Not ducks like Souris, but we had nesting waterfowl. You could drive during the nesting or brood season along the dikes and you'd be seeing broods of ducklings which, unfortunately, you're not seeing now. It's very disturbing to me because the area is drying up. It's changing so. But, my favorite place was Seney, and my favorite work place was right in the middle of a march listening to the birds and finding waterfowl nests and ducklings. That was it. I loved it! It was my, other than marriage days, which were wonderful; and our experience with the fur trade was exhilarating. Actually, that picture in the back page of the booklet exemplifies my happiest day.

MR. GENTRY: Is there any comparison between the tools that you had to do research with in those days, compared to now?

MS. LOSEY: Oh, yes. To begin with, the office, for example was one large room with two desks strictly Army issue. They were you know, the metal type thing. C.S. sat at one, the clerk Leo Vanwalt sat at the other. I think they had two telephones. They might have had only one. It was the kind that you hold like this. There was a mimeograph machine, the kind with this thing. [Demonstrating turning a handle]

MR. GENTRY: No, we don't know what that is. What is a mimeograph machine?

MS. LOSEY: Well, it's a rotary, and when you use it you get yourself smeared with ink because you can't do it without!

MR. MADISON: What about the tools you used as a waterfowl biologist?

MS. LOSEY: Basically, it was my spotting scope, my binoculars. We didn't… the word computer? Nobody had that. I remember maybe some years after when I was out of the field they had a meeting of waterfowl people up in Duluth, Minnesota. They invited me to attend, and I went. I sat there and that's when I began to know the progress that had been made in the techniques. These younger biologists were speaking up and telling what they were doing. Many of them were trained at Delta incidentally. I remember the one that impressed me the most; they were injecting dye into the eggs of the ducks so that as they hacked they could follow them and so forth. I thought that was just fantastic. But I remember that I had guts enough, I guess, to get up and say that these techniques are fine, we need them, they are extending our knowledge, "but don't forget, the bricks of waterfowl biology are the life histories." You've got to know your different ducks. You can't talk ducks. You have to talk species, and you have to know their life history. So, I know that's fundamental and you build on top of that, but just don't overlook it. I got up and made my little speech.

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Gallery

Women tagging fish at the Bozeman Fish Technology Center, circa 1960.
National Fish and Aquatic Conservation Archives (D.C. Booth NFH)/USFWS

Did you know?

The USFWS houses four archival facilities.

The USFWS Museum and Archives at the National Conservation Training Center (NCTC) in Shepherdstown, West Virginia. At the home of the U.S. Fish and Wildlife Service, NCTC houses films, photos and documents chronicling the rich heritage of wildlife conservation. A changing museum and state-of-the-art research archive help the public, researchers and professional conservationists better understand the rich history of American wildlife conservation.

The National Fish and Aquatic Conservation Archives at the D.C. Booth Historic Fish Hatchery in Spearfish, South Dakota. The Service's Fish and Aquatic Conservation Program's archives preserves historic objects and archival materials from National Fish Hatcheries, some of which are on display in the Von Bayer Museum of Fish Culture.

The National Wildlife Property Repository at Rocky Mountain Arsenal in Denver, Colorado. The Repository is a secure environment for storing wildlife items forfeited or abandoned from the Service's Special Agents and Wildlife Inspectors. The Repository shares some items with scientific institutions for research, and some items support wildlife regulation and trade educational programs.

The DeSoto National Wildlife Refuge's Steamboat Bertrand Museum in Harrison City, Iowa. This museum houses a premier archeological collection of more than 250,000 artifacts excavated from the 1865 wreck of the Steamboat Bertrand, once buried in the Missouri River.

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Reflection—A Personal History of Women in Conservation

Gretchen Newberry, Midwest Fisheries Center, U.S. Fish and Wildlife Service

In the mid-1990s, I was a student at University of Wisconsin-Madison with an interest in conservation biology and few ideas of how to proceed into a career. I had been working at the university's Harlow Primate Lab with squirrel and rhesus monkeys, but the prospect of a lifetime in a primate lab or spending half my year in the field in the southern hemisphere seemed daunting. I had an inkling that I should check out the wildlife program at the University of Wisconsin-Stevens Point, but instead I followed the path of least resistance and took the opportunity to apply for University of Wisconsin-Madison's journalism program in the hopes of becoming a science writer someday.

Meanwhile, Pam Thiel and Ann Runstrom were quietly killing it in conservation a few hours away in the U. S. Fish and Wildlife Service (Service) La Crosse Fisheries Resource Office. In 1995, the La Crosse Fisheries Resource Office, the La Crosse Fish Health Center, and the La Crosse District of the Upper Mississippi National Wildlife and Fish Refuge moved to Onalaska, Wisconsin, on the outskirts of La Crosse. These days, the La Crosse District offices are out at Onalaska's Brice Prairie, and the fisheries offices remain here on Lester Avenue and are collectively known as the Midwest Fisheries Center.

Eventually I, too, would arrive at the Midwest Fisheries Center by way of graduate school and a Service career pathways position, but I wondered how did other women start their careers in conservation? In Madison, while I was taking tours of the university's arboretum and learning about Aldo Leopold, Ann and Pam were learning conservation from Leopold's protégées. Had I followed the University of Wisconsin-Stevens Point lead, I might have met these women and followed their path into local conservation.

From the outset, our offices have employed many women, and Ann and Pam were here in the beginning. How did Pam and Ann find their way here? I met with each of them, now retired, to hear their stories. Each had met many women in the Service and the Wisconsin Department of Natural Resources (DNR) here in Wisconsin's Driftless Area, all deserving of their own story.

Pam and I met at the La Crosse District of the Upper Mississippi River National Wildlife and Fish Refuge to talk about her journey. Pam had an interest in science early on, and spent her free time as a child recreating Mr. Wizard's TV experiments with her father. With an interest in biology, she briefly entertained the notion of following her cousin's footsteps and becoming a nurse. Instead, she graduated with a Master of Science degree from University of Wisconsin-La Crosse.

An early mentor for Pam was Wisconsin DNR biologist Ruth Hines. As a student of Aldo Leopold, Ruth's efforts in aquatic conservation led to becoming the namesake of the federally listed Hines Emerald Dragonfly. From the day that Pam graduated college, she became a groundbreaker on her own. She became the first female fish manager with the Wisconsin DNR in the early 1980s. From there she became an invertebrate specialist with the Service and eventually the project leader for La Crosse Fishery Resource Office.

A month later, Ann and I sat on that same bench to talk about her story. Ann grew up on the banks of Wisconsin's Flambeau River as an outdoorsy kid. Few opportunities to hunt or fish were presented to her as a girl, but she insisted on pursing both. And, so, it was with her career choice as a fish biologist. Gifted with high math scores, as a University of Wisconsin-Stevens Point undergrad, she joined a Service cooperative education program and interned at Jordan River National Fish Hatchery and the Winona Fisheries Assistance Office. In addition, she worked for Frances and Frederick Hamerstrom, students of Aldo Leopold, in their kestrel research and on fish telemetry data with Pam Thiel at the Wisconsin DNR. After graduation, she accepted a permanent position with the Service's Sea Lamprey Control Program in Marquette, Michigan.

As an undergrad and for much of her career, Ann was the only woman on the field crew and at many of interagency meetings. She gave that little thought, and never let that discourage her from her goals.

When Ann returned to Wisconsin, she, like Pam, worked for Hannibal Bolton, a manager known for hiring women and minorities. Working with him, Ann learned much about developing relationships with Minnesota and Wisconsin's First Nations. Lake sturgeon reintroduction was a growing interest for agencies and tribal nations, and Ann took an active role in the Service's tribal responsibilities by participating in sturgeon, walleye and brook trout monitoring with partners like the Menominee Indian Tribe of Wisconsin and the Chippewa Tribes of the Great Lakes region.

Like these women, I have my own roots in Wisconsin's conservation history. I grew up camping in the woods of Minnesota in an old green canvas tent once used by my grandfather, who as a young man joined

the Wisconsin's Civilian Conservation Corps in the 1930s. Each weekend, my parents would drive an hour north of the Twin Cities and set us loose in the woods. Many of my questions about the natural world have their genesis within sight of that old tent.

In my brief year and half here at the Midwest Fisheries Center, I learned much from Ann and Heidi Keuler, another fish biologist whose mentor was Pam Thiel. I can say now that I am part of Wisconsin's conservation history through Heidi, Ann and Pam, and that each of us can trace our conservation lineage back to Aldo Leopold and the beginning of the conservation movement

Each of these women, taught by both men and women, had female mentors that were part of Wisconsin's conservation history from the beginning. At times, for women of my generation, the barrier ahead seemed to loom large. We need not have worried, for these women were quietly part the conservation movement at the outset, whether they were along with Aldo Leopold at the inception of the land ethic or elsewhere. Across the United States within the Service, we have seen this story play out over and over again. The stories told in this journal reflect this rich history of women since the birth of the United States' conservation movement.

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La Crosse Fishery Resource Office biologists Ann Runstrom (now retired from the U.S. Fish and Wildlife Service) and Lara Oles (presently working for U.S. Forest Service) in the 1990s. USFWS

The La Crosse Fisheries Resource Office moved to Onalaska in 1995. Present staff includes Dave Wedan (upper left), Regional Watercraft Safety Coordinator. Also pictured are (left to right), Mark Steingraeber, Scott Yess, Nancy Christopherson, Pam Thiel, and Ann Runstrom. USFWS

Child and FWS biologist with monarch butterfly.
Brett Billings/USFWS

The Mexican wolf recovery program.
A. Maestas/USFWS

FWS biologist and wildland firefighter on a prescribed burn at NCTC. Ryan Hagerty/USFWS

Directorate Fellow and FWS biologist with kangaroo rat. Brett Billings/USFWS

FWS biologist tests a blood sample from a grass carp.
Ryan Hagerty/USFWS

Ohio River Islands biologist holds Purple cat's paw pearlymussel. Ryan Hagerty/USFWS

Fisheries technician holds a Southern redbelly dace.
Cole Brittain/USFWS

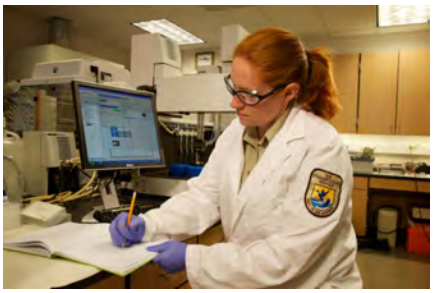
Fishery biologist monitors acoustic hydrophone data.
Ryan Hagerty/USFWS

Biologist nets a Panama City crayfish. Ryan Hagerty/USFWS

Biologist Banding a Northern shoveler. Kevin Holcomb/USFWS

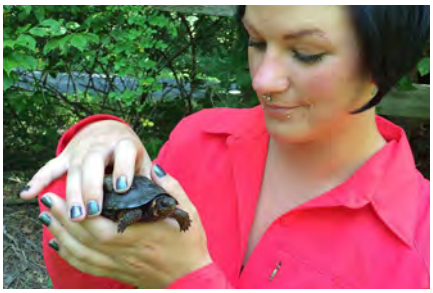
Biologist holds freshwater mussels. Ryan Hagerty, USFWS

Measuring a Long-tailed duck. Lisa Hupp/USFWS



Laboratory analysis by geneticist. Ryan Hagerty, USFWS

Analyzing a Cackling goose blood sample. Lisa Hupp/USFWS



Directorate Fellow with radio tagged bog turtle. Brett Billings/USFWS

Refuge law enforcement officer verifying documents. Steve Hillebrand/USFWS

Examining a Spruce-fir moss spider. Gary Peeples/USFWS

Tagging a female Horseshoe crab on Bowers Beach, DE. Robert Pos/USFWS

Assisting the Minnesota National Guard and Minnesota Dept of Natural Resources with their annual black bear hibernation study on Camp Ripley. Shauna Marquardt/USFWS

USFWS Heritage Committee Mission and Members

U.S. Fish and Wildlife Service Heritage Committee Chartered 1998

The mission of the Heritage Committee is to preserve the cultural heritage and history of the U.S. Fish and Wildlife Service, reinforcing the mission of the agency to ensure that fish, wildlife, plants, and their habitats are preserved for the continuing benefit of the American people.

Chair
Charlie Wooley*
Regional Director, Great Lakes Region

Columbia-Pacific Northwest Region (R9)
Vicki Finn*, Chief of Staff

Cindy Uptegraft Barry, Retired Deputy Assistant Regional Director, Eco Services

Arkansas-Rio Grande-Texas-Gulf Region (R6)
Upper Colorado Basin (R7)
Lower Colorado Basin (R8)
Amber Zimmerman*, Deputy Refuge Manager, Wichita Mountains Wildlife Refuge

Deborah Holle, Retired Project Leader, Balcones Canyonlands

Great Lakes Region (R3)
Greg Dehmer,* Sherburne National Wildlife Refuge

Tom Worthington, Retired Deputy Regional Chief of Refuges, Twin Cities Regional Office

South Atlantic-Gulf Region (R2)
Mississippi Basin (R4)
Paul Tritaik*, Acting Assistant Regional Chief of Hunting and Fishing, South Atlantic-Gulf and Mississippi Basin Interior Regions, National Wildlife Refuge System

Sandy Tucker, Retired Project Leader, Ecological Services, Georgia

North Atlantic-Appalachian Region (R1)
Peggy Hobbs*, Admin, Parker River National Wildlife Refuge

Libby Herland, Retired Manager, East Massachusetts National Wildlife Refuge Complex

Missouri Basin (R5)
Upper Colorado Basin (R7)
Vacant*

John Cornely, Retired Chief, Migratory Birds, Denver

Alaska Region (R11)
Debbie Steen*, Visitor Services Chief, Regional Office

Debbie Corbett, Retired, Alaska Regional Office, Archeology

Lower Colorado Basin Region (R8)
California-Great Basin Region (R10)
Vacant*

Mendel Stewart, Project Leader, Carlsbad Ecological Services

Headquarters (R9)
Mark Madison*, Service Historian, USFWS Museum/Archives, National Conservation Training Center

Dr. Mamie Parker, Retired, Washington Office

At Large Retiree
Jerry Grover*, Pacific Region, Retired Ecological Services/Fisheries

Research
Dr. Matthew C. Perry*, Retired, Patuxent Research Center

Ex-Officio Members
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- Nate Hawley, Division Manager, Creative Resources
- Maria Parisi, Heritage and Partnerships Coordinator, and
- Steve Floray, Curator, Heritage and Partnerships Branch, USFWS Museum/Archives

Cultural Resources:
- Eugene Marino, USFWS Federal Preservation Officer and National Curator

National Fish and Aquatic Conservation Archives at D.C. Booth Historic Fish Hatchery:
- Carlos Martinez, Director
- April Gregory, Curator

National Wildlife Property Repository:
- Elisa Dahlberg, Wildlife Repository Specialist

Research
- Dr. Richard Coon*, Research

Fish and Aquatic Conservation:
- Dave Miko, Division Chief, Programs
- Bennie Williams, Fish Biologist, Communications and Partnerships

National Wildlife Refuge System:
- John Schmerfeld, Acting Division Chief, Visitor Services and Communications

Emeritus Members
Dale Hall
Jim Kurth
John Blankenship
Patrick Leonard
Rick Bennett

* voting member

Questions?
Contact Historian Mark Madison at history@fws.gov or 304/876 7276

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304/876 7276

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