

Rachel Carson, Science Editor

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Unlike science writers, science editors are not generally well known to the lay public. The same gradations of fame appear in the two careers of Rachel Carson, a well-known writer and a relatively unknown but outstanding science editor. Carson, who has been called the mother of the environmental movement, won lasting fame when her 1962 best-seller *Silent Spring* brought the overuse of pesticides to public attention. Fewer people remember that for many years Carson was a science editor at the US Fish and Wildlife Service. Current Service workers consider Carson their “patron saint” and “perhaps the finest editor the government service ever had”.¹ Carson’s editorial work had a huge impact on the US Fish and Wildlife Service and influenced Carson’s own writing.

What were Carson’s thoughts on editing? What did she enjoy most about it? What were her pet peeves? Much of Carson’s editorial work never entered the public light, and little detailed information about it remains now, 60-some years later. The Service did not keep edited drafts and memos, and most of Carson’s colleagues have died. However, a glimpse of this side of her life remains available through interviews with current Service employees, through biographies of Carson,^{2,3} and through her editing of her own writing.

A Winding Road

Carson was born in the small, rural river town of Springdale, Pennsylvania, in 1907. She started writing at an early age and wanted to become a professional writer. But after she entered Pennsylvania College for Women (now Chatham College), a professor introduced Carson to zoology. She was so taken with the subject that she decided to become a scientist. She had switched majors from English to

zoology and thought that she would have to give up writing.

By 1932, Carson had received a master’s degree in zoology from Johns Hopkins University. Her family was poor, and Carson taught biology at the University of Maryland to help cover tuition. She tried to continue at Johns Hopkins for a PhD, but after a year and a half could no longer afford the program. Armed with a mediocre recommendation letter from her research adviser and excellent recommendation letters from teaching supervisors, she struggled to find a second part-time job while continuing to teach at the University of Maryland.

In 1935, Carson’s father died suddenly. Carson’s brother, a laborer, could find work only sporadically during the Depression and was not always paid in cash; he once received a cat and kittens in payment (these were adopted into the Carson household).

The most employable person in the family seemed to be 28-year-old Rachel, the youngest of the three children. She needed a job that could help to support her mother, divorced older sister, and two nieces.

Carson had spoken during graduate school with Elmer Higgins, the director of the US Bureau of Fisheries, about job opportunities in government. Now she went to see him about a job. Higgins remembered Carson as shy, quiet, and determined. Luckily for her, he needed someone to write “7-minute fish tales” for a government radio program called *Romance Under the Waters* and hired Carson to work 2 days a week for 8 months, earning \$6.50 a day, which supplemented her income from teaching. Carson’s scripts helped to make the program a success, and the Bureau quickly hired her as a full-time “junior aquatic biologist”. In her new job, Carson collected and analyzed data and wrote scientific reports, press releases, and brochures for the public. She particularly enjoyed traveling and talking with scientists.⁴



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The radio scripts jump-started Carson’s writing career. She reworked the scripts into articles and received a small additional income from their publication in the nearby *Baltimore Sun*. Higgins had also asked her to write a brochure about the sea on the basis of the scripts. “My chief read [the first draft] and handed it back with a twinkle in his eye,” Carson remembered. “‘I don’t think it will do,’ he said. ‘Better try again. But send this one to the *Atlantic*.’”², pp 20-21 *The Atlantic Monthly*, a top magazine, did accept her article; its publication drew the attention of editors at the Simon & Schuster publishing company and resulted in a book contract. When the book, *Under the Sea Wind*, was published in 1941, Carson gave a copy to Higgins, signed: “To Mr. Higgins, who started it all.”³, p 103

Meanwhile, the Carson family was in dire financial straits. Marian, Rachel’s older sister, had recently died of pneumonia and left Rachel the sole provider for her mother and two nieces. *Under the Sea Wind* received excellent critical reviews but was not a financial success. In the year of the attack on Pearl Harbor, it was not the type of book that drew public interest. The Carson family depended more than ever on Rachel’s income from the Service.

OLGA KUCHMENT prepared this article while a Science Editor intern.

Guarding Our Wildlife Resources

In the 1940s, a wave of change swept through the Bureau of Fisheries, and Carson was caught up in it. A year before *Under the Sea Wind* was published, the agency merged with the Bureau of Biological Survey to become the Fish and Wildlife Service. The New Deal had funded an enormous expansion of the system of wildlife refuges, and the system fell under the jurisdiction of the Service, which already monitored fish and wildlife populations.

But as the United States entered World War II, the government's attention drifted away from the Fish and Wildlife Service. In 1942, the agency was moved to Chicago from Washington to make room for those "crucial to the war effort", and the agency was not entirely moved back until 2 years after the war. Unless the public was made to understand the importance of what the agency did, "we wouldn't have a rosy future in terms of budgets," said Mark Madison, US Fish and Wildlife Service historian.⁵ To combat its low profile, the Service began to use militaristic language in its public-information brochures, such as "guarding" and "defending" US wildlife resources, Madison said.

During that time, Carson received several promotions, and her job involved more and more writing and editing. Officially promoted to editor by 1946, she conceived of a series of booklets to explain to the public why the Service and its work in wildlife conservation were important. Carson wanted to use prose, illustrations, and design of a higher quality than had been appearing in US government publications. The series was titled *Conservation in Action*, and it described and promoted 12 wildlife refuges. Carson wrote the text for four of the booklets herself and edited the others. She traveled to the refuges with the illustrators—and her good friends—Shirley Briggs and Katherine (Kay) Howe, talking to refuge employees and taking photographs and extensive notes. Carson loved fieldwork, and these trips were some of the best times in her life, said Linda Lear, Carson's biographer.⁴ "She was so aware of everything", Briggs

said of those trips in an interview for the Fish and Wildlife Service oral-history project. "You saw a lot more if you were out with her somehow."⁶

The most difficult part of production was convincing the Government Printing Office to print the booklets as specified. Carson and Lionel Walford, director of the Service at the time, "thought government publications should be as classy and striking and attractive as any commercial one or more so", Briggs said in the Fish and Wildlife Service interview.⁶ But the highest priority of the printing office was to minimize costs. The director of the office "never wanted to do anything different", Briggs said. "Whether anything actually got printed in more than black ink was a great issue. We were always battling for a color or two somewhere." Carson would not back down. Bob Hines, another friend and illustrator on Carson's staff, wrote that Carson "had the sweetest, quietest 'no' any of us had ever heard. But it was like Gibraltar. You didn't move it."^{7, p 110}

Carson and Walford eventually got their way but not before they appealed to the director of the Fish and Wildlife Service and to the Secretary of the Department of the Interior. The booklets were published with two-color covers and with ink drawings of the refuges and wildlife on the inside pages. Carson checked the illustrations for accuracy—including details like the number of spines on a mullet's fins. Later booklets included reproductions of black and white photographs. In the introduction to the series, Carson eloquently drew the public's attention to the importance of conservation:

Wild creatures, like men, must have a place to live. As civilization creates cities, builds highways, and drains marshes, it takes away, little by little, the land that is suitable for wildlife. . . . Refuges resist this trend by saving some areas from encroachment, and by preserving in them, or restoring where necessary, the conditions that wild things need in order to live.⁸

David Klinger, a writer and editor at the Service, said that the *Conservation in Action* series is still regarded as "one of the best [publications] that's ever come out of government", even though it is outdated.¹ Madison said that explaining to the public what the Service does was easily Carson's biggest legacy as an editor.⁵

Editorial Tasks

Carson would work 9 to 5, spending much of the time talking on the telephone or typing memos. She was not happy about the schedule and relished field trips to wildlife refuges or scientific research stations. Klinger, who has a current version of Carson's job, echoes a similar sentiment, perhaps inherited from Carson: "You've got to be out on the ground and in the field to be successful. . . . Try to stay out of the office."¹

After Carson became editor-in-chief in 1949, she wrote the following to describe her job for a women's group:

My job consists of general direction of the publishing program of the Service—working with authors in planning and writing their manuscripts, reviewing manuscripts submitted, and overseeing the actual editing and preparation of the manuscript for the printer. I have a staff of six assistants who handle the various details of this sort, including planning or executing illustrations, selecting appropriate type faces, plannings, general page layouts and design. It is really just the work of a small publishing house.^{2, p 99}

Carson was patient and inspiring when working with authors and illustrators. The door to her uncluttered office was always open; on the walls were photos of a blue crab and a seascape. Work was often taken home on nights and weekends, leaving less time for Carson's own writing.

At that time, many scientists were working for the Service, and Carson's interactions with them helped to advance her writing career. Part of her job was to edit

Carson continued

the scientific articles produced by Service scientists. As part of its oral-history project, the Service interviewed scientists who had had their articles edited by Carson, and these authors gave nothing but positive comments about her work.⁵ Carson read their drafts carefully and “kept them in the loop” about the editing process; her training in biology enabled her to understand the articles well and helped her to win respect. Through editing, she gained many contacts who reviewed her writing for accuracy and helped her to gather information when she researched her books.

Among the articles crossing Carson’s desk were some discussing the effects of the newly invented pesticide dichlorodiphenyl-trichloroethane (DDT) on animals and plants. Madison said that the first Fish and Wildlife Service press releases on DDT were fairly alarmist; for the animals and plants the agency studied, DDT was an “unmitigated disaster.”⁵ This information was the genesis of *Silent Spring*. If Carson had worked in the Department of Agriculture, which witnessed many more positive effects of pesticides, *Silent Spring* might not have been written.

With *Silent Spring*, as with her other books, Carson always remained an editor. Used to directing the publishing program at the Service, she could not resist tinkering with the publication processes of her own books. For instance, she was disappointed with the design in a set of galley proofs of her second book, *The Sea Around Us*. She wrote to Philip Vaudrin, her editor at Oxford University Press:

You and I have agreed that every care must be taken to avoid the physical appearance of a textbook. Yet I think this is exactly the impression conveyed by the use of the bold and starkly severe sans serif type for the half title pages. In my office we use sans serif a great deal, and with pleasing effect, but for technical material. . . . But not a book like mine! I do hope you will substitute something like Baskerville or Garamond or Granjon, and also increase the size.⁹

Editorial Humor

Carson would sometimes blow off steam in private. She, Howe, Briggs, Walford, and others would meet in her office, heat water illegally in a closet, brew tea and instant coffee, and gossip and make fun of government bureaucracy. Briggs wrote in her diary: “Our clandestine [N]escafé sessions break the monotony. Lock the door and huddle around furtively. Kay [Howe] opened the door a crack to take something from the messenger and Walford thinks we should have a floozy wrapper to slip on at such times.”^{3, p 94}

Once, someone at the Chicago office of the agency published a shoddy, partly plagiarized, and in places absurd cookbook on wild game. The Nescafé group planned to send a forged telegram, supposedly from a feature writer at a big magazine in New York, to the editor. The telegram was to say that the writer and a photographer were coming to Chicago for an illustrated interview with the editor and were hoping to take photos of a distinctive wild-game dish: field mice for 12, served with mushrooms and white wine. The writer was supposed to arrive on the day Walford would be in Chicago. A conspirator agreed to send the telegram from New York. The plan was abandoned after the group recognized that sending a telegram under a false name could result in a jail sentence.^{2, p 78}

Briggs remembered that Carson’s “zeal and humor made even the dull stretches of bureaucratic procedure a matter of quiet fun, and she could instill a sense of adventure into the editorial routine of a government department. My office adjoined hers, and this gave me an inaccurate and heady view of government life.”^{2, p 77}

Her Writing

Besides working full time as an editor, Carson was constantly struggling to make time for her writing. In letters, Carson explains that if she fought off the desire to go to sleep at 11:30, she could get a lot done during the night.^{3, p 111} But much of the time, a week of Service work was so

exhausting that it was Saturday evening before she would revive enough for writing.^{3, p 159}

“I know that if I could choose what seems to me the ideal existence, it would be just to live by writing,” Carson wrote in a letter to a friend in 1945. “But I have done far too little to dare risk it. And all the while my job with the Service grows and demands more and more of me, leaving less time that I could put [into] my own writing. And as my salary increases little by little, it becomes even more impossible to give it up!”^{2, p 77} The job seemed impossible to give up for some of the same reasons she got it in the first place: Her family depended on her financially throughout her life. Also, Carson had a number of illnesses and racked up large doctor’s bills. Her friends and family speculated, however, that her intense work schedule contributed greatly to her ill health.

Carson did attempt to leave the Service in 1945 before she was promoted to editor, but no appropriate jobs were available. She loved working on the *Conservation in Action* series, but once it was over, her administrative duties expanded and left almost no time for writing or for travel. She would take time off from work to try to meet the publication deadlines for her second book, *The Sea Around Us*, but this made Service work pile up to such an extent that she talked of “quietly relapsing into a sanitarium.”^{2, p 120}

In 1952, *The Sea Around Us* became a national best-seller and won several awards, which meant that Carson could finally afford to quit the Service. “Of course the stated and obvious reason for resigning,” she wrote, “is to devote all my time to writing.”^{2, p 154} She kept in close touch with many of her former colleagues. After Carson left, the Service gave her the Distinguished Service Award, the highest honorary award for employees of the US Department of the Interior.

The habits Carson acquired while an editor served her well in her writing career. She went on to write *The Edge of the Sea*, and her first book, *Under the*

Sea Wind, was republished. Both books stayed on national best-seller lists for a long time.

The last book she wrote was *Silent Spring*, which presented in simple terms such complex concepts as bioaccumulation (whereby a toxic substance present in small amounts in the environment can accumulate in an organism) and called for a re-examination of the often indiscriminate pesticide spraying in the United States. The pesticide companies launched a full-scale attack to discredit Carson, calling her a cat lover, a bird lover, a hysterical woman, and even a Communist. Carson was not able to see the full effect of her work: She had advanced breast cancer when *Silent Spring* was published, and she succumbed to it 18 months later. She did have time to defend her book to the public and to testify about the harmful effects of pesticides before Congress.

Public opinion was overwhelmingly on her side. Environmental laws were changed to reflect a heightened concern for humans' effects on the world around them.

The Fish and Wildlife Service supported Carson throughout the publicity storm after *Silent Spring*, and it continued to support her ideas after she died. A national wildlife refuge near Carson's summer home in Maine was posthumously renamed in her honor, and in 2007, the Service held a large celebration of the 100th anniversary of her birth. 🔥

References

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