

Silent Spring by Rachel Carson, published by Houghton Mifflin in 1962, 195 pages and *Rachel Carson: Witness for Nature* by Linda Lear, 1997, 485 pages. Published in Canada by Fitzhenry & Whiteside Ltd. Both books are available at the Castlegar and District Public Library. Reviewed by Robert M. Macrae, Instructor of Integrated Environmental Planning Technology, Selkirk College.

August 14, 2000

I read a book review feature in the National Post, published on Saturday July 16, 2000, by Patrick Luciani, entitled "Environmental Crisis? ... What rot!" It was a string of selective half-truths and distortions attempting to prove the environment is in fine shape. I've heard this squawking from other ostriches with their heads in the sand, but what surprised me was the henpecking of Rachel Carson, author of *Silent Spring*.

Mr. Luciani is the Executive Director of the Donner Canadian Foundation, an organization with a mission to encourage individual responsibility and private initiative to help Canadians solve their social and economic problems. Did Mr. Luciani read *Silent Spring*? Does Mr. Luciani realize that Rachel Carson could have been the cover girl for the Donner Foundation if she was born four decades later? She was born into a poor, devout and hardworking Presbyterian family. Her family helped pay for her education at a Christian women's college and at Johns Hopkins University. She abandoned a personal dream of obtaining a PhD - something she was eminently qualified to achieve - because of strong family values. She had to support her parents, her sister and her nieces. She held a salaried job only until she became successfully self-employed. She championed privatization of publicly held resources. As a self-employed individual, she took on the Fish and Wildlife Service and Department of Agriculture, two massive departments of the US government that had trampled citizens' rights. She exposed big government's negligence and incompetence in registering pesticides and conducting ill-conceived insect eradication programs - things that had been overlooked by established scientific and academic communities. Truly she represents the triumph of the individual demonstrating that people and communities that work together to solve their own problems are better off than those who rely primarily on the state for assistance.

How do I know this? Well, Mr. Luciani's article motivated me to reread Rachel Carson's *Silent Spring* and her biography *Rachel Carson: A Witness for Nature* by Linda Lear.

Silent Spring is more than a beautifully written book. It's knowledgeable, scientific, clear, social commentary. It's a classic that exposed serious environmental practices which had received little public scrutiny. The impact of one woman on the political, academic, scientific and manufacturing communities was massive and is still being felt with chagrin. After *Silent Spring* life for those who despoil land, air and water would never be the same. And after *Silent Spring*, public acceptance to assurances of safety from governments, corporations and private foundations remains cynical.

Silent Spring is exceptionally well referenced. When I read *Silent Spring*, it was Carson's meticulous attention to detail, her consultation with a huge array of credible authorities and her presentation of lower-cost, environmentally benign alternatives that impressed me. She cites numerous scientific studies, she quotes contemporary authorities and she leads logically to reasoned conclusions. For those who tried to trash her, they were faced with challenging evidence from experts and capable, concerned citizens. One such citizen was a Winnipeg banker who retired to Florida and thereafter counted birds rather than bank notes. He was hardly a flaky leftist. Carson's work remains difficult to challenge on a scientific or technical basis. Rather than challenge her science, critics went after Carson.

Carson was rational, unlike her critics. At no point in *Silent Spring* did she advocate banning insecticides. She prescribed what is now practiced and called integrated pest management - an approach requiring a thorough understanding of a pest, its economic damage threshold, its natural enemies, and ecology. She advocated full disclosure and intelligent dialogue. She included comparative cost studies and demonstrated the appalling environmental impact of the government's insect eradication programs, the terrible human and animal health consequences of these programs, and the money losing nature of this approach to pest control.

Carson must be credited with initiating the public's concern over environmental degradation - she fledged the environmental movement and the sustainable development debate. Since Carson's time environmental degradation has continued: the ozone layer is thinner, groundwater levels are lower, surface water is more contaminated, smog episodes are more frequent, more coral reefs are dead, more sites are radioactive, more landfills are leaching toxic ooze and more species have become extinct. Although DDT use was banned in North America after *Silent Spring*, its manufacture for export continues and its use globally has risen since 1962. Ironically, DDT is carried back to the Americas by transboundary winds to settle in places such as the Arctic and on the Rocky Mountains where it enters our food web and can be found in the tissue of some North Americans in alarmingly high concentrations.

This book is among the most influential of the twentieth century and is essential reading for anyone remotely interested in environment protection. Don't slag it till you read it!

Rachel Carson: A Witness for Nature is a fascinating biography of Carson's life. Linda Lear, the author, is a Research Professor of Environmental History at George Washington University and a Research Collaborator at the Smithsonian Institution. Her work is well-crafted and inspiring. She chronicles Carson's life, the life of a woman who chose a non-conventional career and the genesis of the environmental movement. She buries forever the accusations, innuendoes and aspersions put forward by those who try to undermine the truths in *Silent Spring* by attacking the author. She describes how Rachel Carson, through hard work and devotion, overcame near poverty and the needs of her family and confronted the wealthy and powerful with their negligence and deceit. Carson's life is a triumph for us all to rejoice.

Rachel Louise Carson was born in 1907 in Springdale, Pennsylvania. She first published when she was eleven. She had life-long interests in writing and the outdoors. She saw her hometown on the Allegheny River transformed from a bucolic rural town with woods, farmland, picturesque streets and pretty little frame dwellings set among overhanging apple and maples trees into an endlessly ugly, dreary, dirty, working-class town squeezed between the West Penn Power Company and the Duquesne Light Company. The Allegheny became polluted, the Appalachians were denuded, the emerging coal and oil industries fouled the air, soil and water. In order to graduate from high school in 1925, Carson had to write a senior thesis in which she compared intellectual dissipation to the reckless squandering of natural resources. She noted that while there was a new trend toward conservation of nature, "the God-given faculty for clear thinking and intelligent reasoning lies dormant and helpless from disuse."

Lack of money was always an issue in Carson's life. Her father had trouble finding work that paid enough to support his family. He tried his luck as a land developer, an insurance salesman and then as the night supervisor at the local electric utility's switching station. His health prevented him from taking more vigorous work, but he was devoted to his family. Rachel's mother, an energetic member of the United Presbyterian fold, gave piano lessons to supplement the family income. Rachel's older sister dropped out of high school, became a stenographer, married, was deserted and remarried all by the time she was twenty-three. Rachel's older brother survived World War I and returned home to a dissolute career as an electrician's assistant.

Rachel attended a Christian college. She competed for and won a \$100 scholarship, but her family still had to borrow from a bank and sell assets to raise the other \$800 needed for each year of College. Carson, shy and with acne from shoulders to forehead, excelled at university, switched majors from English to biology, met professors who would serve as mentors for the rest of her life, graduated and received a scholarship to Johns Hopkins University where she began work on a Master of Arts degree. She studied in Baltimore, and spent her summers working at the Woods Hole Marine Biological Laboratory. She and her family remained poor. She delayed completion of her Masters degree until 1932 so she could hold a part-time job and support herself and her parents. She succeeded in graduate school, made valuable contacts, and increased her understanding and scientific experience.

After graduating, she took a job as a US Bureau of Fisheries aquatic biologist. She used her scientific and literary skills. She liaised with scientists and wrote for the public on fish conservation. She continued to build a network of scientists who would prove invaluable resources when she wrote *Silent Spring*. Among

her efforts with the Bureau of Fisheries, she championed privatization of state-owned oyster beds as the best guarantee for their renewal and productivity - a position, I imagine, the Donner Foundation would support. She wrote features on wildlife, hunting and fishing for newspapers and magazines as a second job. Rachel's father and sister died when Rachel was 30 and Rachel became guardian of her two nieces. Rachel learned from her sister what life offers single women with no means of support.

She was promoted through the civil service as a scientist and a writer until she resigned in 1952 after she published *The Sea Around Us* and scores of articles. She was admitted into a doctorate program, but she never completed a PhD for lack of money and the need to care for family.

Carson had been interested in the use of poisons in the environment since 1938, she was concerned by shortsighted attitudes of scientists at the USFWS and the USDA. She felt that they acted precipitously without understanding the long-term effects of modern synthetic insecticides on the delicate balance of nature. In 1957 the USDA attempted a fire ant eradication program opposed by the residents of Long Island. It was this and her interest in the misuse of pesticides that prompted Carson to commit to write a three-part serial for *The New Yorker* and a book which became *Silent Spring*.

There were other events that caught the public's attention regarding the inappropriate use of pesticides. The "Great Cranberry Scandal" of 1959 exposed weaknesses in the USDA's pesticide registration process - the pesticide aminotriazole had been registered by the USDA for use on cranberry bogs after harvest, but was being applied before harvest. Residue was found on fruit released for sale just as toxicity tests showed that the pesticide was carcinogenic. In the early 1960s there was further public outrage over the disclosure that US drug companies had attempted to market thalidomide domestically. The public's rage was vented again over the response of the USDA and chemical manufacturers to Carson's articles in the *The New Yorker*.

After publication of *Silent Spring* in 1962, Former Secretary of Agriculture Ezra Taft Benson is credited with writing to Dwight Eisenhower, "Why a spinster with no children was so concerned about genetics?" and she was "probably a Communist." There was plenty of cruel, personal criticism of Carson. Criticism came from offended interest groups under guise of independent research organizations. Dr. Frederick Stare of the National Nutrition Council was a shrill critic. Freddy's salary came from dues paid by the three largest manufacturers of pesticides in the USA at that time.

Unknown to critics, Carson was diagnosed with cancer two years before she published *Silent Spring*; she died in 1964. But *Silent Spring* lives. It led to inquiries by the President's Science Advisory Committee and a Senate Committee on Commerce. Carson testified at both. These hearings led to changes in pesticide registration, labelling and use, as well as pest management, the Clean Water Bill and a dramatic change in the public's trust and willingness to acquiesce to the government. *Silent Spring* may have encouraged the civil rights activists, anti-Vietnam war activists, environmental activists and the anti-World Trade Organization activists who visited Seattle in 1999.

Can there be any doubt that Carson embodied values the Donner Foundation embraces? It would be fitting if the Donner Foundation post-humously awarded a grant in honour of Rachel Louise Carson equally divided between The Nature Conservancy and The Sierra Club just as Carson did with her estate.