



DDT Wars

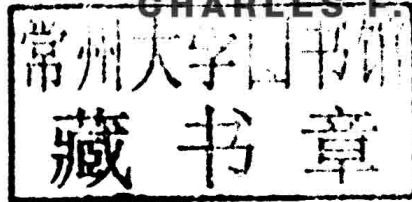
**Rescuing Our National Bird,
Preventing Cancer, and
Creating the Environmental Defense Fund**

Charles F. Wurster

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DDT Wars

*Dedicated to Lorrie Otto,
who did her best to protect life on Earth,*

*to William D. Ruckelshaus,
a public servant who did the right thing,*

*to Marion Lane Rogers
who kept this history alive and inspired us all,*

*and to Marie H. Gladwish,
who more than anyone else, with endless encouragement,
affection and her many talents, helped bring this book to fruition.*

PREFACE

The Bald Eagle, our national bird, engraved on the Great Seal of the United States of America, was disappearing from America. Predatory birds of many species were in sharp decline. Brown Pelicans in California laid eggs that broke and produced almost no chicks. Mother's milk was so contaminated that if it were in any other container, it could not legally cross state lines. Humans worldwide were contaminated, as were penguins in Antarctica and polar bears in the Arctic. Laboratory tests indicated that the insecticide DDT caused cancer. William Ruckelshaus, first administrator of the U.S. Environmental Protection Agency (EPA), banned DDT in 1972.

Told by someone who lived it, this book details how a modest group of volunteer scientists and citizens fought the "DDT wars" from Long Island living rooms through the courts to ultimate victory. This was overwhelmingly a grassroots effort. They were not revolutionaries, did not demonstrate in the streets, threatened nobody, and hugged no trees; nobody lay down in front of a bulldozer. They had neither wealth nor political connections. What they did have were determination, passion, and persistence to eliminate the DDT threat. They got the science right.

This dedicated group of scientists, citizens, and a few attorneys escalated the DDT issue from local to state to national prominence. They used our democratic, legal, and political systems designed for the peaceful resolution of disputes. Experts from varying disciplines from around the country and the world rallied to the cause. Margaret Mead said, "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that has." That is exactly what happened here.

Along the way a new organization, the Environmental Defense Fund (EDF), was created, without funds, by 10 citizens, the same volunteers who pursued the DDT campaign. Their strategy was to take environmental problems to court using scientific evidence. Significant legal obstacles challenged the campaign from the beginning. The team was repeatedly thrown out of court.

Rachel Carson's groundbreaking book *Silent Spring* aroused public opinion, caused substantial alarm, and was vigorously denounced by the chemical industry. Her analysis of the scientific literature was accurate, but *Silent Spring* did not immediately change government pesticide policies. EDF, through a systematic and persistent campaign employing scientific evidence through legal channels, did change government pesticide policies.

By chance and circumstances, I found myself in the midst of this course of events beginning in 1963. I was told I should write a book about it, but why write a book 40 years after the fact? Why now? When it seemed timely and sensible 40 years ago, when the whole story was fresh in my mind and all the relevant papers surrounded me, I retreated from the task. Many other things needed to be done, and the job was intimidating. Somebody else would write this book. Furthermore, the goal had been to get DDT banned, and that had been accomplished. The fledgling organization EDF still needed nurturing and attention; so did my full-time, paying faculty position at the State University of New York at Stony Brook. The DDT battles paid nothing. If anything, they were a detriment to my career. Writing a book just did not fit in at that time.

During the past decade my thinking began to change. "Somebody else" had not written this book. An accurate account of the DDT saga did not exist. Distortions began to appear. The Internet contained all sorts of false nonsense about why and how DDT got banned. A TV documentary on the Bald Eagle stated that "Congress" had banned DDT. Internet websites asserted there never was a decline of the birds. The DDT ban was based on "junk science" and the DDT threat was a "hoax." I was called "a radical ecologist out to destroy the American way of life." Scientists were actually called "genocidalists," killing millions with malaria. DDT had become "controversial"

again. The same tactics that were used back in the Sixties to denounce the DDT threat were again being used to discredit scientists and the scientific evidence of climate change. The public was being misled and deceived again.

Maybe it was time to write the book.

Like falling dominoes, enduring benefits from winning the “DDT wars” continued to roll in. The bird populations that had been depressed by DDT had recovered their former abundance. The Bald Eagle had returned dramatically. First a dozen, then two dozen dangerous toxic chemicals were banned worldwide. Environmental law spawned by the DDT precedent had become a significant part of the legal profession. EDF had become one of the most influential and innovative environmental organizations in the United States and had even gone international.

The original intention to save birds from the ravages of DDT soon included the additional goal of preventing human cancer. The DDT campaign by a growing group of scientists and citizens had made the world a safer, healthier place. That is EDF’s continuing focus.

What an exciting and dramatic sequence of events! Sometimes discouraging, sometimes exhilarating, always demanding intense involvement, we started with modest goals but attained significant accomplishments. This journey, these results, is among the greatest environmental case histories of modern times. It heralded a new era of environmental defense. This 50-year story is a book that could not have been written 40 years ago.

Now is the time to write this book!

This book details the inside story of the DDT wars as the struggle escalated, roughly in chronological order, from about 1963 into the 1970s. New issues were spawned, and some of these have been followed to more recent times. This is not a peer-reviewed scientific treatise, but every effort has been made to achieve scientific accuracy while still being comprehensible to intelligent laymen. Where possible, reviews are cited that could lead readers to original sources, rather than citing hundreds of individual papers. Scientific information available at the time of these events is cited. We will not “bring everything up to date,” but the science of the DDT issue is even truer now than it was then. Read on to see how the DDT wars of 40 years ago became important in today’s world.

FOREWORD

Fifty years after Rachel Carson published her book *Silent Spring*, and 40 years after the U.S. Environmental Protection Agency banned DDT, the pesticide is still controversial, although it shouldn't be.

Dr. Wurster's book is a wonderful, thought-provoking narrative of how dying birds inspired the fight to ban DDT, helping to spawn the American environmental movement. This movement took on many other battles, including cleaning up the nation's waterways, providing safe drinking water and food, and cleaning the air. Today, it is dealing with dangerous greenhouse gases that threaten the health of the entire planet.

I served at the EPA as assistant administrator in the 1990s and was responsible for EPA's pesticide programs. During my time at EPA it was clear that the successful efforts by a small number of volunteers to ban DDT had continued to bear fruit. Not only had most uses of DDT been eliminated, but a number of other persistent toxic pesticides had also been banned. The laws governing pesticide approvals in the United States were greatly strengthened overall as a clear consequence of the important scientific and legal precedents that were established. We now have treaties—the Stockholm Convention, a global agreement to control the release of persistent organic pollutants (the POPs Treaty), and the Rotterdam Convention on Prior Informed Consent—that are helping to control the most persistent and hazardous toxic pollutants everywhere. The benefits from these efforts to health and the environment are enormous.

A 2011 review by the World Health Organization (WHO) found that people in households treated with DDT for the prevention of malaria, and the workers who apply DDT, are at risk for cancer and male reproductive defects. Even public health uses of DDT need to include safeguards for workers and households. In homes, women of childbearing age, fetuses, and infants are especially susceptible. In 1972, EPA Administrator Ruckelshaus decided there was enough scientific evidence to warrant banning most uses of DDT in the United States. DDT toxicity was clearly demonstrated in the 1970s, and the evidence today, after 40 more years of research, is even stronger. In truth, we know more about DDT than almost any other chemical.

Why would DDT be controversial today? For many, DDT is a symbol of the environmental movement. From the very beginning, while a small number of volunteers were waging battles to decrease the risks of DDT, there were many defenders of DDT, some paid by industry to refute the scientific evidence. Even today, some conservative voices continue to attack the DDT ban, often claiming that it caused deaths due to malaria. Yet to my knowledge, no national or international legal actions ever have taken DDT out of the hands of public health authorities for controlling the mosquitoes that carry malaria. If anything, malaria control programs have suffered from political instability, health system weaknesses, and funding shortages, not lack of available pesticides. In many regions of the world mosquitoes have evolved immunity to DDT, rendering it ineffective. In Mexico, malaria has been controlled in this century without the use of any DDT.

So why is there still an attack on the issue of DDT today? As in the 1970s, we today are locked in a debate about a major environmental issue, climate change, that threatens our planet and life as we know it. Many people are understandably confused about the science of climate change. In the past, industry attacked the scientific evidence on the risks of DDT. Today, consultants and academics paid by industry-supported funding are attacking the science of climate change. They may hope that by claiming that the DDT threat was a “hoax,” the DDT ban killed millions, and the science was inconclusive, they can strengthen their case against

the science connecting manmade emissions of greenhouse gases to climate change. Or, at the very least, they can succeed in sowing doubt and confusion.

There is much to learn from understanding the past. These hard-fought battles over pesticide safety were not won overnight. The issues were every bit as complex (at the time) as our current efforts to confront global climate change and, like today, required that scientists, attorneys, and policy experts come together to develop effective strategies. While in the past a small number of committed volunteers were able to make an enormous difference, today we need many more allies to prevail. The efforts to discredit the science on DDT risks connect directly to the efforts to discredit the science of global warming.

The actions on DDT spurred by Dr. Wurster and others, whose initial intention was to save birds, ultimately also reduced human exposures, which probably prevented cancer, along with human developmental and reproductive defects. Those benefits to birds and to human health are still with us today and will carry forward into the future. Let us hope we are able to continue to make progress in environmental health as we confront the challenges of today's world.

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The DDT story of 40 years ago is about science, law, and people, a remarkable and growing group of dedicated people who wanted to protect our environment. Most were not paid to pursue this mission but were eager to be a part of it. That includes all those scientists and other citizens mentioned in this book, and many more unmentioned. It especially includes a growing list of scientists called EDF's "Scientists Advisory Committee" who agreed in writing above their signatures to provide information or testimony in their areas of expertise without fee. I often called complete strangers to ask them to come testify on short notice, and I was amazed that they usually dropped whatever else they were doing to fly across the continent to testify in a legal proceeding.

Then there was the EDF team, incredibly dedicated and talented people, starting with only 10 and growing into hundreds, then thousands, who weathered the ups and downs of building an organization, starting with nothing. We often didn't know how to do it, made all the mistakes possible, and usually gained some wonderful new person who did know how to do it. There were often good reasons to quit, but few did, and many dedicated decades of their lives to building the EDF as we know it today. All of this was a team operation. I was urged to write this book in the first person, but I will usually say "we" because it was almost always "we," a team effort. Special thanks are due to Bob Risebrough and Ian Nisbet, who took many weeks from their usual activities to lend their great scientific expertise to the hearings in Madison, Wisconsin, and Washington,

DC. Tom Cade of The Peregrine Fund helped make sure I got the details right in my treatment of predatory birds.

It will be difficult to mention individuals because I will invariably overlook many deserving of mention. Art Cooley and Malcolm Bowman kept after me for years to write this book. Marion Lane Rogers, the EDF secretary, hassled me to contribute to her *Acorn Days*, personal recollections of those early days, before I finally did so while in Australia. Marion vigorously urged me for years to write this book, and encouraged me to quote from *Acorn Days* without limit. Vicki Eisel, Debbie Mefferd, and Norma Watson, as editors of the EDF newsletter, gathered and organized detailed information about EDF's early days. Norma supplied me with two large notebooks containing all of EDF's newsletters and other publications since day one. *Acorn Days* and those EDF newsletters were major sources for this book. Norma also helped edit the manuscript. My former wife, Eva Tank-Nielsen, put up with the emotional gyrations of the 1970s while encouraging me not to quit when there were good reasons to quit.

My partner, Marie Gladwish, joined the others in urging me to write it, offered no end of encouragement, and provided many excellent ideas, helpful editing, and graphic designs and photography. My son, Erik Wurster, repeatedly got me out of computer trouble. When my format got scrambled, I sent the manuscript to him and he sent it back unscrambled. Most of the time he was in Rwanda, East Africa, but I still sent it to him and it was quickly back again, often within a half-hour. Once I touched the wrong key and everything vanished in an instant, gone directly to heaven. Petrified, I called Erik, and he brought it back from heaven in minutes. Malcolm Bowman also frequently bailed me out of digital headaches, patiently walking me through computer procedures on late-night, transcontinental telephone calls.

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