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The Return of Silent Spring

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The Causeway Bridge from New Orleans to the North Shore of Lake Pontchartrain is jammed with commuters every day. It has also been jammed by another kind of commuter, a bird called the purple martin, the first songbird to arrive in the spring.¹ They are an acrobatic, glossy-purple, and human-friendly species. They could be seen hawking insects from the air, coming to roost in communal boxes like little backyard hotels, and in hanging gourds at gas stations from Louisiana to the Carolinas. They were not hard to locate in New Orleans because their bubbly calls soared like operettas. They were faithful to their houses and returned to them each year.

In early July, the martins and their young began gathering by day along telephone wires, and an amazing spectacle began. Come dusk, hundreds of them would gather in the sky and come funneling down to the Causeway Bridge like a tornado, zooming under and over it, finally settling on a railing. They came to rest, bubbling and chirping and shoulder to shoulder in a line extending a hundred yards out into the dark. Dozens of us came to watch them. The Causeway authority even built a little platform for us, and declared the shore-side part of the bridge to be a purple martin sanctuary. Then, on one magic day, determined by the

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1. Personal observation by author and his wife, 1972–2020.

angle of the sun, they would start the supremely dangerous flight over the Gulf of Mexico to South America.

But that was then, and now is now. Today, only a puny handful of purple martins return to New Orleans. I know of only two locations in all the city. These days they are the all-but-doomed players in a drama that we first became aware of in Rachel Carson's *Silent Spring*.² It was silent because DDT was killing the birds in droves.

Silent Spring hit the American public like a bomb. Inter alia, it led directly to the enactment of the National Environmental Policy Act,³ often called our Magna Carta for the environment. It also led, in a case called *Sierra Club v. Morton*,⁴ to new concepts in standing that allowed ordinary citizens to sue those who were making life on the planet increasingly untenable—and who were making a great deal of money in the bargain. The Natural Resource Defense Council compares *Silent Spring* to Thomas Paine's *Common Sense* and Harriet Beecher Stowe's *Uncle Tom's Cabin* with regards to how it so galvanized the American people to act.⁵ While *Common Sense* led to the Revolution of 1776, *Silent Spring* led to the environmental revolution of 1969.

Rachel Carson herself was a scientist with the U.S. Fish and Wildlife Service, with a courage to speak truth to power seldom found in public officials, whom retaliation against was often swift and terminal. She also loved to write stories and poetry since childhood.⁶ This marriage between hard science and beautiful writing was forged in her first major book, *The Sea Around Us*,⁷ a thoroughly-researched history of nothing less than the birth of the planet, then the oceans, and then the life histories of the sea creatures that inhabited it, about which we knew practically nothing. One described species that pre-dates humans by millennia, the shark, if caught in fishing nets would be de-finned, leaving them mortally wounded at sea. Without lurid adjectives or mawkishness, she made them “human.” *The*

2. RACHEL CARSON, *SILENT SPRING* (1962).

3. See Paul Taylor, *Silent Spring Triggered Environmental Movement*, PERMACULTURE NEWS (June 20, 2016), <https://www.permaculturenews.org/2016/06/20/silent-spring-environmental-movement/>; see also Jill Lepore, *The Right Way to Remember Rachel Carson*, THE NEW YORKER (Mar. 19, 2018), <https://www.newyorker.com/magazine/2018/03/26/the-right-way-to-remember-rachel-carson> (depicting a full biography of Rachel Carson, including her publications and their success).

4. *Sierra Club v. Morton*, 405 U.S. 727, 734 (1972) (granting standing to any individual adversely affected—even aesthetically—by a federal action).

5. *The Story of Silent Spring*, NRDC (Aug. 13, 2015), <https://www.nrdc.org/stories/story-silent-spring>.

6. See Lepore, *supra* note 3.

7. RACHEL CARSON, *THE SEA AROUND US* (1950).

Sea Around Us sold over one million copies, was first on the New York Times bestseller list, and remained on the bestseller list for a record eighty-six weeks.⁸

Carson's *Silent Spring* dealt of course with a far more serious, and far less inherently interesting, subject: dichloro-diphenyl-trichloroethane (DDT), a nearly indestructible, man-made complex of molecules that was literally poisoning the planet. Particularly the water, which fed the fish, which fed, inter alia, the white pelicans, the osprey, and the American bald eagle. DDT, it turned out, thinned their eggshells, which then cracked open when an adult then sat on them in the nest. Published in 1962, *Silent Spring* topped the best seller list for more than a year and sold over two million copies.⁹ This, for a book with no photogenic creatures, no plot—and the essential ingredient for most best sellers—no sex. It was simply what science said: the truth.

The blowback from the chemical industry, led by DOW, was ugly, personal, and intense.¹⁰ She was accused of being a pseudo-scientist (she lacked a Ph.D.), of overlooking the need for pesticides to stop the spread of malaria, and of environmental “hysteria” a decade before it became fashionable to care about the environment at all. She was forced to participate in a nasty televised debate, lest she appear to be dodging the bullet, where a DOW scientist abused her to the point that the moderator stepped in. Already dying of cancer, she died less than two months later. There can be no doubt that this experience hastened her demise.

As prescient and powerful as *Silent Spring* was, it was only the warm-up band for what came next. Long after the DDT ban, avian life, the insects it fed on, and the wetlands that so many migratory birds depended on, continued to crash. We are now nearing a total collapse.

We can begin with the lowly insects, which have dropped globally by seventy-five percent in the last thirty years.¹¹ Over a third of them are

8. Joshua Rothman, *Rachel Carson's Natural Histories*, THE NEW YORKER (Sept. 27, 2012), <https://www.newyorker.com/books/page-turner/rachel-carsons-natural-histories>.

9. Eliza Griswold, *How 'Silent Spring' Ignited the Environmental Movement*, N.Y. TIMES MAG. (Sept. 22, 2012), <https://www.nytimes.com/2012/09/23/magazine/how-silent-spring-ignited-the-environmental-movement.html>.

10. See Lepore, *supra* note 3. The personal attacks against Carson were stunning. She was accused of being a communist sympathizer and dismissed as a spinster with an affinity for cats. In one threatening letter to Houghton Mifflin, Velsicol's general counsel insinuated that there were sinister influences in Carson's work: she was some kind of agricultural propagandist in the employ of the Soviet Union, he implied, and her intention was to reduce Western countries' ability to produce food, to achieve “east-curtain parity.” See Taylor, *supra* note 3.

11. See Caspar A. Hallmann et al., *More than 75 Percent Decline over 27 years in Total Flying Insect Biomass in Protected Areas*, 12 PLOS 1 (2017).

now endangered and will be the next to go. Here in America, the seasonal drop has also been seventy-five percent, and up to a staggering eighty-two percent¹² during the summer when insects are most crucial for purple martins (hawking dragonflies) and other birds feeding their young. The monarch butterfly, perhaps the most popular insect on the planet, is now down by eighty percent and has a sixty percent chance of total extinction in this century.¹³

These are just the charismatic ones. Honeybees pollinate one-third of the crops of the world, including those most necessary for human survival.¹⁴ All wild bees are endangered.¹⁵ The ones remaining are bred in hives that are trucked around the country to pollinate major cash crops like almonds, at considerable expense, serving no other ecosystem function.¹⁶ Afterwards, most of them are killed. Then there are the lowly dung beetles, which perform another unrecognized but valuable service: cleaning up thousands of tons of waste a year.¹⁷ Beetle species were once so plentiful that a famous scientist named Haldane, when asked what God's work showed in nature, replied "an extraordinary fondness for beetles."¹⁸ Consider as well the fate of the locusts, over a million in Nebraska alone in 1875.¹⁹ By the turn of the century, there was a sharp decline. Most notably, the Rocky Mountain locusts, a species that swarmed the Great Plains in the millions in the mid 1870s, was nearly extinct by 1902.²⁰ Predators of all kinds that depended on locusts found other nutrients, or starved.

The reasons for this catastrophe are no mystery. Insecticides and pesticides are the prominent ones, but for pollinators and butterflies, it is

12. *See id.*; *see also* Damian Carrington, *Plummeting Insect Numbers 'Threaten Collapse of Nature'*, *GUARDIAN* (Feb. 10, 2019), <https://www.theguardian.com/environment/2019/feb/10/plummeting-insect-numbers-threaten-collapse-of-nature>.

13. *Monarch Butterfly Witnesses Alarming Decline*, *URBAN BIRDS FOUND.* (Mar. 15, 2021), <https://urbanbird.org/monarch-butterfly-population-witnesses-alarming-decline/>.

14. *Why Bees Are Essential to People and the Planet*, *UNITED NATIONS ENV'T PROGRAMME* (May 18, 2022), <https://www.unep.org/news-and-stories/story/why-bees-are-essential-people-and-planet>.

15. *See* KELSEY KOPEC & LORI ANN BURD, *POLLINATORS IN PERIL: A SYSTEMATIC STATUS REVIEW OF NORTH AMERICAN AND HAWAIIAN NATIVE BEES* (2017).

16. *See id.*

17. Carrington, *supra* note 12.

18. *Beetlemania: Why Are There So Many Species of Coleoptera*, *ECONOMIST* (Mar. 18, 2015), <https://www.economist.com/science-and-technology/2015/03/18/beetlemania> (attributing the quote to Haldane, and his estimate of 300,000 known species of beetle, as opposed to only 9,000 species of birds).

19. Chuck Lyons, *1874: The Year of the Locust*, *HISTORYNET* (Feb. 5, 2012), <https://www.historynet.com/1874-the-year-of-the-locust/?f>.

20. *See id.*

the simple loss of flowers and grasses. The best remaining habitats are in the median strips of highways . . . for those that are not killed by herbicides to avoid the cost of mowing, or mowed for no reason other than having the medians look “pretty.”²¹ Without insects, we lose all the warblers, martins, swifts, nighthawks, and flycatchers of the world. As for shorebirds, ducks, and other migratory species, the rapid collapse of coastal wetlands has taken its own toll.

Small wonder, then, that a full half of bird species globally have disappeared since *Silent Spring* was written, and almost a third of them have disappeared in America.²² Thirteen have been officially declared to be extinct, and eleven more will be added in short order. A total of 280 are on the current Endangered Species List.²³ They include the ghostly Snowy Owl and a handful of colorful warblers that may be beyond saving. Grassland species like the common bobolink and meadowlark are also falling precipitously and, like all avian species, go down further every year.²⁴ Even the purple martins, with whom we started, have been dropping by six percent a year for the past twenty years,²⁵ despite our predator-free, ready-made nesting boxes waiting for them to arrive. There is also a third phenomenon working here, and it is perhaps the most difficult to deal with: the common house cat. Cats in America alone kill an estimated 2.4 billion birds a year.²⁶ That’s billion, with a “B.”

What these reports and studies tell us is that a second *Silent Spring* is well under way. Within a century it may be hard to find avian life left in America save species like crows, pigeons, and English sparrows that will eat anything including the filth of the cities and the garbage of waste dumps, and, perhaps, the hawks that feed on them.

21. Sci Show, *Those Pretty Road Medians May Be Bad for Bugs*, YOUTUBE (July 23, 2020), <https://www.youtube.com/watch?v=rdxdBrXoOCU> (discussing current wipeouts but potential for enhancement).

22. *Global Bird Populations Steadily Declining*, CORNELL CHRON. (May 5, 2022) <https://news.cornell.edu/stories/2022/05/global-bird-populations-steadily-decline> (explaining that there is a forty-eight percent decline, including a loss of nearly three billion individual birds).

23. John W. Fitzpatrick & Peter P. Marra, *The Crisis for Birds is a Crisis for Us All*, N.Y. TIMES (Sept. 19, 2019), <https://www.nytimes.com/2019/09/19/opinion/crisis-birds-north-america.html>.

24. U.S. Fish and Wildlife Service Proposes Delisting of 23 Species from Endangered Species Act, U.S. FISH & WILDLIFE SERV. (Sept. 29, 2021) (identifying, among the proposed delisted species, eleven avian species).

25. Manon Verchot, *Where Have All the Purple Martins Gone?*, NAT’L AUDUBON SOC. (Dec. 10, 2014), <https://www.audubon.org/news/where-have-all-purple-martins-gone>.

26. *Cats and Birds: A Bad Combination*, AM. BIRD CONSERVANCY, <https://abcbirds.org/program/cats-indoors/cats-and-birds/> (explaining that cats are also particularly lethal in Hawai’i).

Lastly, though, the mockingbird is still ubiquitous, and has an uncanny knack of imitating other bird calls so well that it can fool us into thinking things are more diverse than they are. Reflecting on this, my wife, Lisa, came back from walking the dog with a poem about the mockingbird. The last line asks, “when all the other birds are gone . . . what will they have left to imitate?” The only answer I could think of was: “car alarms.”

It is already happening.