

The enduring power of Rachel Carson's message

By John Mull
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Forty-five years ago Rachel Carson wrote *Silent Spring*, a groundbreaking book that alerted the world to the perils of DDT and other man-made chemicals.

Hundreds of such compounds - now termed persistent organic pollutants, or POPs - routinely reside in the tissues of humans and other species. These fat-soluble chemicals accumulate because they are acquired by organisms faster than they can be metabolized. Their highest concentrations occur in long-lived animals occupying the top position of food chains, a fact that makes humans prone to accumulation.

Health problems linked to POPs include neurological damage, cancer, reproductive disorders and immune suppression.

One testament to the enduring power of Carson's message is that nearly a half-century later she remains a scapegoat for corporate and political interests opposed to the regulation of POPs.

Last week, two members of Utah's congressional delegation - Reps. Rob Bishop and Chris Cannon - voted against a measure that would have allowed the U.S. post office in Carson's hometown of Springdale, Penn., to be named in her honor ("Utah reps vote against honoring naturalist," *Tribune*, May 2). More troubling than the votes themselves were the press releases that the congressmen issued to support them.

Cannon's statement denied the existence of any documented health effects from DDT and blamed the banning of DDT for the deaths of "millions of people" from malaria. In an equally dubious announcement, Bishop's office claimed that "maybe 100 percent of the things Carson talked about" were either inaccurate or untrue.

Clearly, neither one understands the importance of this aspect of environmental protection. Four decades of scientific research have substantiated Carson's basic message and added considerable detail to it. Much of this understanding has been acquired through research funded by congressional allocations.

Biologist George Woodwell of the Woods Hole Research Center in Massachusetts recently summarized the problem as "a chemical corruption of the globe that affects human conception, embryogenesis, fetal development, birth and life thereafter." His statement is a far more accurate summary of reality than the smokescreens thrown up by Bishop and Cannon to justify their votes.

In fact, the U.S. was one of 150 nations to sign the 2001 Stockholm Convention on POPs. Formally enacted in May 2004, this international agreement bans the use of 12 types of POPs. These include several insecticides - DDT among them - and certain classes of widely used industrial compounds like PCBs.

The Stockholm Convention makes an important exception for DDT. It bans the use of the pesticide in agricultural settings - a policy long in effect in the developed world - while allowing continued and limited applications of DDT for controlling the *Anopheles* mosquitoes that transmit malaria. Its indiscriminate use in agriculture was largely responsible for harmful effects on many non-target animals, most famously bald eagles and peregrine falcons.

Malaria does remain a serious killer, especially of young children in tropical Africa, but not for the reason that Cannon suggests. Rather, it persists as the deadliest of insect-transmitted diseases for other reasons. These include the evolution of pesticide resistance in mosquitoes and of drug resistance in malaria parasites, lack of access to basic medical care and preventive measures, like mosquito netting, and deforestation and other forms of environmental degradation.

Here in Utah, environmental damage is an increasingly evident threat to human health, including a reduction in water supply and increases in the frequency of fire and levels of allergenic pollen. Meanwhile, mercury levels build in the Great Salt Lake and declining air quality along the Wasatch Front threatens the respiratory health of its residents, as recently publicized by Utah Physicians for a Healthy Environment.

On behalf of their constituents, our elected officials at all levels should heed the words of Rachel Carson when considering their responsibility to work for environmental protection. "The question," she said, "is whether any

civilization can wage such a relentless war on life without destroying itself, and without losing the right to be called civilized."

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