

How I Killed the Chesapeake Bay

By David Edwin Lillard

Courtesy of Blue Ridge Press

Warm weather gets me jazzed about being outside. If I'm not outside, I'm *thinking* of getting outside—about being near the water, on the water, and eating anything that comes *from* the water.

In reality, I spend more time mowing the lawn than paddling the Potomac River or hiking the woods along a creek that feeds the Bay. When I do get out, it can mean four hours of driving to get three hours outdoors. That brings me to how I killed the Chesapeake—with a little help from everyone in the watershed that, like myself, is occupied with greening their lawns and driving hither and yon for work and recreation. We did it with nitrogen.

Nitrogen ranks at the top for things troubling the Chesapeake and most U.S. bays, lakes and estuaries. It's largely the reason for a 6,000-square-mile Gulf of Mexico dead zone, and for fish kills from Puget Sound to the Gulf of Maine, from the Texas Coast to New York Harbor.

Here's why: Nitrogen promotes algae growth. Algae blocks sunlight from reaching underwater plants and grasses. Without sunlight, the underwater vegetation (which makes oxygen) begins to die, robbing the water of "dissolved oxygen" and aquatic habitat. That's when blue crabs, rockfish, and every other underwater critter that crawls or swims begins to die.

When the algae gets really bad it's called an algae bloom. Such blooms create dead zones, areas of water that are free of oxygen and most life. We now have major dead zones on both U.S. coasts.

How does this excess nitrogen get there? Some comes from aging sewage plants and septic systems, or from farm field runoff during storms—nitrogen is the active ingredient in industrial-strength fertilizers.

Those same fertilizers are the ones we lace our lawns with. In fact, uncontrolled nitrogen runoff from most residential neighborhoods is worse than runoff from a well-tended field. It washes from our lawns, into the street, and, because of the way we drain our streets, rushes to the nearest stream and on its way to the Bay.

Nitrogen is also a byproduct of fossil fuel burning. About 40 percent of all the nitrogen in Chesapeake Bay falls from the skies. Most airborne nitrogen comes from power plants, but roughly a third comes from vehicle exhaust. When you sit idling in traffic, you're puffing nitrogen into the Bay.

That's right. My tailpipe and green backyard, and yours, killed the Bay.

That's enough to make you want to stay home, let the grass die, and hide in the air conditioning watching documentaries about endangered species on the widescreen TV—until you realize how much nitrogen that adds to our waterways.

Ah, but there's good news for us Bay-paddling, backyard dwelling, blue crab eaters. People who study this stuff say cutting the amount of nitrogen reaching waterways is not only possible, it's doable. Not *easy* doable, but definitely achievable. Right now, says the U.S. EPA, 250 million

tons get into the Bay every year. If we could cut that to 16 tons, the Bay can recover. For the average home, that's only about a 15 percent cut. Similar cuts could help the Mississippi, Great Lakes, and coastal estuaries.

Start in your own backyard by using natural fertilizers. Made from corn gluten and other agricultural byproducts, natural fertilizers don't bomb your lawn with excess nitrogen. They work by feeding the root system. Read up before you buy

As for airborne nitrogen, changing a few old habits would go a long way. Here's an easy one: Why rush to get to the shore, just to sit in traffic? Take your time; leave later; arrive on the water at practically the same time without all the stress, and without dumping nitrogen on crabs and fish.

Here's another easy one. Buy a cheap clothes-drying rack. You can fluff up your undies in the dryer, then hang them on the rack to dry courtesy of your HVAC system or the air coming through the windows.

I hear you saying, "Changing a few habits won't save the Bay." True, but it will help.

And there are some new ideas out there to aid with the big stuff. One being launched by an outfit called the Chesapeake Fund is a water-quality marketplace; it's a voluntary program modeled on the carbon trading system being considered in Congress.

But the little stuff matters too, and requires personal engagement. Start by calculating your family's nitrogen footprint at www.chesapeakefund.org. See how your personal nitrogen output stacks up against the national average. Start a competition with your friends: The ones who cut the most nitrogen get treated to a dozen of the sweetest, fattest blue crabs of September. Sign me up for that.