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Crisis Feared in Rest of Nation, Too

DDT-Like Poison Spreads in Florida

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A poisonous new man-made chemical, nearly as deadly and long-lasting as DDT, is slowly diffusing through the entire environment of Florida and the rest of the nation — creating fear of another "DDT crisis."

The new pollutant recently started turning up in fish, birds, water, even man. And it has quickly become almost as prevalent in some birds and animals as DDT itself.

Scientists believe the new chemical is virtually a "classical case study" of how a harmful pollutant can spread through an ecological system before it's even identified.

THIS NEW environmental threat carries a deceptively simple name. Scientists call it PCB, short for polychlorinated biphenyl. PCB doesn't occur naturally—it's made from benzene, a petroleum derivative.

PCB is used extensively in manufacturing, although it's made by just one company — Monsanto Chemical Co.

PCB is used in the manufacture of products ranging from pesticides to ink to plastics to electrical insulation. It's even found in some of the plastic bags wrapping supermarket food.

As these products decompose, the PCB remains intact — to be picked up later in the "food chain" and to work its way up the chain to fish, eagles, and man himself.

Like DDT, PCB is "persistent," which means it doesn't break down quickly in nature. Thus, it builds up in the bodies of fish, birds, animal life and even man. Scientists are still looking for data on possible long-term effects of PCB on all forms of life.

"THERE IS evidence now that this compound is toxic to fish and animals . . . it is showing up in a variety of animal life, but just what these residues mean at this point we are not prepared to say," said Jack Lowe, a marine biologist at the Gulf Breeze Laboratory of the U.S. Department of the Interior.

"We've turned up some pretty sizable levels here in Florida," says Lowe.

"We've found it in fish, shrimp, oysters, crabs, any number of things. It appears that PCBs are toxic to shrimp, for one, but we're still working on it.

"When we turned these residues up, we thought it was reason to be disturbed, and we still do. I think this is a cause for concern, since the compound is chemically related to pesticides," Lowe said.

AND OTHER federal biologists said PCB is being found in dead birds, particularly bald eagles, in about the same amounts as DDT — which has up to now been blamed for many bird deaths.

The case of PCB has been something of a scientific detective story. But it's been a detective story in which science was, for a long time, outfoxed by the pollutant.

PCB is so close to DDT chemically, that chemists and analysts were missing it.

Then, in 1966, a team of Swedish chemists isolated the new pollutant and identified it for the first time. By that time, however, PCB had become widely disseminated throughout America and Europe.

LIKE DDT, too, PCB travels through the food chain in a process called "biological magnification." Little creatures collect and concentrate the chemical, then are eaten by larger creatures, which in turn are eaten by something else. Since the larger creatures usually eat many of the smaller creatures, the PCB is concentrated along each step until the animal at the top of the food chain — usually, the bald eagle — ingests a large concentration of the pollutant.

THE SOLE U.S. manufacturers of PCBs, Monsanto, makes them at two plants — one in Alabama and one at Sauget, Ill. But the firm refuses to reveal production figures without an ironclad guarantee of government secrecy.

Leakage from the Alabama plant last year produced a major fish kill, according to Bill Woods of the Florida Game and Fresh Water Fish Commission.

At federal request, Monsanto is organizing a campaign to reduce PCB leaks and to recover the chemical from manufacturing processes. But the compound appears to be widely scattered already.