

World and nation

Scientists Lean Toward Caution in Debate Over Microbe Linked to Fish Kills

By Joby Warrick and David Brown=(c) 1997, The Washington Post

WASHINGTON _ This much is well documented: When humans have close encounters with the toxic microbe *Pfiesteria piscicida*, strange things seem to happen. Some people complain of nausea and memory loss. Others develop sores. One North Carolina biologist, after working with *pfiesteria* in a laboratory, lost all feeling in his legs and had to crawl from the room.

But was it *pfiesteria*, hysteria or something else? That's the question being debated by scientists after the microbe has sickened and killed fish in Chesapeake Bay tributaries. Although scientific studies have documented the microbe's lethal ways with fish, researchers are barely beginning to understand how it affects humans.

Opposing opinions have led to sharply different policies in Maryland and Virginia. Maryland has been cautious, closing waterways and reporting Wednesday that *pfiesteria* exposure can cause people to develop chronic memory problems. Virginia has gone the opposite way, leaving open the

Rappahannock River after sick fish were found there.

It may be months or even years before scientists can say who is right. But a consensus is beginning to emerge among scientists about what should be done in the meantime: When dealing with an organism as unpredictable as *pfiesteria*, they say, it's best to err on the side of caution.

"I think Maryland's being smart," said Don Anderson, a scientist at Woods Hole Oceanographic Institution in Massachusetts and the director of the newly formed National Office for Marine Biotoxins and Harmful Algae.

"You're very likely to get people alarmed when you take a step like this, and that is a big drawback," he said. "But you need to bite the bullet and do it if there's some genuine risk ... To do nothing would be irresponsible."

That view, however, is not universal. And even those who advocate caution don't always agree on what the term means. To some North Carolina scientists who have been tracking *pfiesteria* (pronounced fis-TEER-ee-ya) attacks for years, it means closing waterways only when fish are dying or sick in large numbers.

"If you have a few fish with lesions, there's probably not enough *pfiesteria* around to cause a problem," said B.J. Copeland, a marine ecologist at North Carolina State University. He added, "That's what we call a SWAG _ a scientific wild-assed guess."

His approach is only somewhat more interventionist than that of Virginia, which has left the Rappahannock open even after samples in which one-half to three-quarters of fish had *pfiesteria*-like lesions.

Others, particularly those personally acquainted with *pfiesteria*'s toxic effects, believe the

line should be drawn much sooner. Howard Glasgow is one of three N.C. State scientists who became ill in 1992 after working with a large batch of *pfiesteria*'s toxic secretions.

"I personally don't care if it's *pfiesteria* or some acid that someone dumped in the water. If you have fish that are literally dissolving away, you can extrapolate that you don't want be swimming there," Glasgow said.

Glasgow said his exposure left him virtually disabled for months. Like many others who were exposed, he suffered a wide range of physical and neurological symptoms, including dizziness and memory loss.

In a strict scientific sense, however, neither those cases _ nor the far less certain ones reported by a handful of North Carolina and Maryland watermen exposed outdoors _ can be tied to *pfiesteria*. To do that, scientists will have to isolate the toxin (or toxins) and identify it in water or air. Although purifying *pfiesteria* toxin, and developing a lab test for it, are the objects of intensive research, neither has been accomplished to date.

In a study done at Duke University Medical Center, rats injected with whole *pfiesteria* cells showed mild impairment in their ability to learn a new skill. It did not have discernible effects on memory, although the toxicologist who did the research, Edward D. Levin, did not rule out the possibility the organism could have such effects in people.

Pfiesteria produces two classes of toxins. One is water soluble and appears to be responsible for the nervous system effects. The other is soluble in fat and is responsible for causing the skin ulcerations seen on fish. It is possible that several variants of each type of toxin exist. Neither class has been

isolated in enough quantity to allow scientists to determine its chemical structure.

After the 1992 episode, Glasgow's lab was shut down for more than a year. It eventually was reopened as a high-security "biohazard" facility where workers wear respirators and protective suits.

Glasgow and his boss, aquatic botanist JoAnn Burkholder, pioneered much of the early scientific research on *pfiesteria*. They documented the microbe's bizarre 24-stage life cycle, which enables it to change within hours from a harmless blob of amoeba to a lethal whip-tailed microorganism. In its killer stage, *pfiesteria* attacks fish with an arsenal of powerful toxins that disrupt the nervous system and cause the skin to slough off.

Later laboratory tests confirmed that *pfiesteria*'s toxins can cause neurological problems in rats. But while *pfiesteria*'s human "victims" have reported similar symptoms, finding hard evidence in the lab has been problematic.

A controversial study this year by East Carolina University found no conclusive evidence that *pfiesteria* was causing any of the illnesses reported by fishermen and others who work in *pfiesteria*-infested

waters. Some state officials suggested that the symptoms were caused by other pathogens or that a kind of mass hysteria was at work. Some of the state's marine scientists have even questioned whether *pfiesteria* is responsible for the state's massive fish kills in recent years.

Burkholder dismisses those questions, citing a sizable body of laboratory studies documenting *pfiesteria*'s rapid lethality with dozens of species of fish and shellfish. Throughout the scientific community, prominent scientists who know Burkholder's work say she makes a compelling case.

"It's something out of Stephen King novel," said Sandra Shumway, a shellfish biologist at Long Island University's Southampton, N.Y., College, who became a believer after witnessing a *pfiesteria* attack on shellfish tissue in her lab. "Pfiesteria is an organism that should be taken very, very seriously."

But in sorting out the truth about *pfiesteria*'s effects on humans, scientists are hampered by a dearth of data. To date, the clearest description of what appears to be poisoning by *pfiesteria* toxin comes from the report of the three N.C. State people who became ill while working with samples of the organism in a research laboratory.

The exposure came both from direct skin contact with water in which *pfiesteria* was growing and from breathing air that apparently contained the toxin. The water contained *pfiesteria* in greatly varying concentrations, and in all three cases, there was repeated exposure to the organism.

Among the numerous symptoms were numbness and tingling of the hands and feet, disorientation, problems with memory and thinking, mood changes, difficulties breathing and skin sores.

A crucial step in evaluating a poison is determining how little of it is necessary to cause sickness or, put another way, how much of it is safe. This will not be known for *pfiesteria* until the toxin is isolated. At the moment, scientists also do not know what concentration of the organism in the water is hazardous.



Clinton 'Happy and sad' about Chelsea

WASHINGTON, Sept. 17 (UPI) President Clinton says he is both "happy and sad" about his only daughter Chelsea leaving home this week to start college.

Clinton took the afternoon off today to spend time with Chelsea. The president and his wife, Hillary Rodham Clinton, take her to Stanford University in Palo Alto, Calif., Thursday.

The first family will join other parents and students at Parents Day orientation proceedings on the sprawling 8,100-acre campus Friday and will get 17-year-old Chelsea settled in her coed dormitory. Classes begin Sept. 24.

In the Oval Office to discuss the multibillion dollar tobacco deal, Clinton said he began the day doing more important things, like looking at boxes to "make sure we had all the right things in the right boxes."

He paused at the question of whether he was ready for his daughter to leave home, stating somewhat ruefully that "that's what you raise them for." Clinton said, "I'm happy and sad at the same time."

"We're pretty excited today about what the president has done," said Mississippi Attorney General Mike Moore, who filed the first state anti-tobacco lawsuit and was lead negotiator in settlement talks.

"He (Clinton) thinks we ought to build and toughen up the settlement," Moore said. "For 90 days, we were trying to get the president to support this thing, and finally he did."

However, all parties have conceded that it is too late to move a major tobacco deal through Congress before it adjourns in late October or early November. That means Congress will not take up the measure in earnest until early next year.

Tobacco foes have spoken hopefully of a new mood in Congress that could lead to passage of anti-smoking legislation with legal protections or other concessions being given to the industry. But most observers think the cigarette makers will have to succeed.

"Twelve senators from tobacco states _ working together, calling in IOUs _ can stop anything," said Richard Scruggs, a Mississippi lawyer working for attorneys general from several states.

"Anyone who thinks you can just impose anything you want on tobacco is smoking something other than tobacco."

The tobacco deal would give the industry permanent relief from lawsuits by the states and private class action lawyers. Although claims by individual smokers would still be allowed, punitive damages would not.

In return, the industry was to reimburse states for smoking related health care costs and fund public health programs _ with the money being raised through cigarette price increases of about 60 to 70 cents per pack.

In addition, the industry had agreed to an array of anti-smoking measures, including protections against second hand smoke, a ban on tobacco billboards and other marketing restrictions, and industry financed anti-smoking ad campaign and stop smoking programs costing \$2 billion per year.

Clinton generally endorsed these measures Wednesday. Industry lawyers and attorneys general had argued that such anti-smoking programs could not be secured through court action, even if states were successful in their suits.

But critics of the deal and, ultimately, Clinton's advisers concluded that the price hikes and other measures could not achieve the deal's stated goals of reducing teen smoking by 30 percent within five years and 60 percent in 10.

Crisis Intensifies Over Israeli Settlers' Takeover

By Rebecca Trounson=(c) 1997, Los Angeles Times

JERUSALEM: Israeli Prime Minister Benjamin Netanyahu on Wednesday failed to defuse a crisis sparked by the takeover of two East Jerusalem buildings by Jewish settlers, and Palestinian leader Yasser Arafat warned of a "very negative reaction" if the settlers are not removed soon.

Underlining the potential for violence, scuffles broke out late Wednesday between heavily armed police and scores of angry Palestinians just yards from the settlers' barricaded compound. Five Palestinians were reported hurt and four others arrested, along with two right-wing Israelis.

The growing crisis has split Netanyahu's governing coalition, with some members urging him to order the settlers forcibly removed from the Palestinian neighborhood of Ras al Amud and others all but threatening to bolt the government if he does. Aides say the politically explosive situation with the Palestinians will not allow him to leave the three families of settlers where they are.

"We would like to avoid a confrontation that would result in their eviction by force," said David Bar-Illan, a spokesman for Netanyahu. "But they are not going to be allowed to stay as tenants in that place. That's clear."

Backed by dozens of conservative supporters, the 11 settlers so far have refused to leave. Their American landlord, Miami millionaire Irving Moskowitz, asked the Israeli Supreme Court on Wednesday to bar police from evicting them. "The court is expected to rule on the request Thursday."

The crisis has left Netanyahu squeezed between competing pressures. Within hours of the settlers' Sunday night arrival, the prime minister denounced their move. But their continuing presence in Ras al Amud, along with reports in the Israeli media that Netanyahu knew of their intentions before they moved in, have fueled Palestinian outrage and suspicions.

Bar-Illan confirmed Wednesday that Internal Security Minister Avigdor Kahalani told a Sept. 5 Cabinet meeting that Jewish settlers might try to move into buildings in Ras al Amud. The meeting was held the day after a three bombers killed themselves and five Israelis in downtown Jerusalem, and hours after a failed commando raid left 12 Israeli soldiers dead in southern Lebanon. Bar-Illan said Netanyahu "was not aware" of the political and security implications of the Ras al Amud report.

Many Palestinians say they fear that the new settlement _ established in homes that Moskowitz purchased from Arabs _ is intended to preempt any chance of Palestinians establishing a future capital in traditionally Arab East Jerusalem. "The only solution for this obvious provocation is to evacuate all the settlers immediately," said Ahmed Tibi, a close adviser to Arafat. "This is a serious violation of the peace agreements and a clear signal of the intentions of Mr.

Netanyahu and his government not to continue with the peace process."

In the Gaza Strip, Arafat warned of potential violence. "We hope that this will be solved very quickly," the Palestinian Authority president told reporters outside his headquarters. "Otherwise, there will be a very negative reaction."

Moskowitz also has plans to build a Jewish housing complex in Ras al Amud, a densely populated neighborhood between Jerusalem's Old City and the Jewish cemetery on the Mount of Olives. The retired physician and developer has given millions of dollars to support Jewish settlement on the West Bank and East Jerusalem.

Citing security and political concerns, Netanyahu has vowed to block the new construction. But Moskowitz showed no signs of backing down, either on his plans for the neighborhood or in the latest crisis. "We have come back to our home," he said in an interview with a conservative Israeli radio station.

Bar-Illan said no compromise proposals had yet been offered to the settlers, but several were discussed in government meetings Wednesday, including requiring the families to evacuate the buildings but allowing them to leave behind a "token Jewish presence" of security guards and maintenance officials. Palestinian officials immediately rejected the idea.

For this year, VMI's first coeducational class now includes 398 men and 26 women. "That definitely indicates an increase in interest," a VMI spokesman, Col. Michael Strickler, said of the increase in inquiries. "We're putting in place what we said we were going to do, and it's having an impact." But civil rights activists criticized the report for a lack of detail on how the female students were faring, including the failure to mention an Aug. 29 altercation that led to the suspension of Angelica Garza, 18, of Fort Belvoir, for punching an upperclassman.

Garza, previously had complained that she was being unduly harassed on the Rat Line, VMI's ritualized abuse of freshmen, but both VMI officials and her parents later said her sex played no role in the confrontation.

"I am disappointed that the report didn't deal with that incident," said Marcia Greenberger, co-president of the National Women's Law Center. "They should give assurance to the court that it was handled fairly and without regard to gender."

VMI officials say more women are expressing interest in attending

By Dan Eggen=(c) 1997, The Washington Post

The number of women expressing interest in enrolling at the Virginia Military Institute has risen dramatically, which VMI officials cited Monday as a sign they were

succeeding at assimilating women into the Corps of Cadets. In an 11-page report filed in U.S. District Court in Roanoke, VMI detailed the changes made to its campus and programs to accommodate its first coeducational class this year, such as modifying barracks for privacy. VMI also offered highlights of the start of the school year, including the competitive debut Saturday of the school's first women's sports team, across-country squad.

VMI officials said that 3,219 women have asked for information about enrolling in fall 1998, up from the 1,688 women who expressed an interest in the school

Clinton Wants Congress to Attack Teen Smoking

By Myron Levin=(c) 1997, Los Angeles Times

WASHINGTON _ President Clinton Wednesday urged Congress to attack teen smoking through comprehensive legislation along the lines of the giant tobacco peace accord _ but with stiffer industry payments to raise cigarette prices, and unfettered authority for the Food and Drug Administration to regulate nicotine levels in cigarettes.

Although Clinton refused to embrace the \$368.5 billion tobacco deal, he warmly praised the state attorneys general whose mega-lawsuits brought the industry to the bargaining table and led to the agreement announced June 20. And in a ceremony in the Oval Office as several attorneys general and prominent anti-smoking leaders looking on, Clinton outlined principles to be embodied in legislation that largely tracked provisions of the deal.

But there were significant differences as well. Clinton called for industry payments and penalties sufficient to raise cigarette prices over the next decade by up to \$1.50 per pack _ roughly twice the increase that would result from the proposed settlement. Aimed to discourage smoking by price-conscious teens, such an increase would bring prices more in line with other western countries where cigarette taxes often range between \$2 and \$4.

"This is not primarily about money," Clinton said. "This is about changing ... the behavior of the tobacco companies, the behavior of the American people, the future behavior of our children."

Dr. David Kessler, former head of the FDA and a leading critic of the tobacco deal, hailed Clinton's statement as a victory for public health in one of many impromptu news conferences that broke out near the White House after the event.

"Saying he's willing to go up to \$1.50, if necessary, is exactly the right approach," Kessler said.

In his long-awaited statement,

Clinton did not say if he would accept the liability protections that had been the cigarette makers' whole reason for negotiating the tobacco deal. Bruce Reed, Clinton's domestic policy adviser, said later that administration officials "had some concerns" about certain of the immunity provisions, but he did not elaborate.

Industry response was critical, if a bit subdued. "We agree with his (Clinton's) stated goal of reducing underage use of tobacco products," Philip Morris, R.J. Reynolds and two other firms said in a joint statement. But they said the deal announced June 20 "still represents the most achievable balance."

"We have agreed to pay a total of \$368.5 billion over a 25-year period," which is "an unprecedented amount of money," said J. Philip Carlton, an industry lawyer. "It would certainly be unacceptable to try to raise the financial terms of this agreement."

Congressional response was predictably mixed, with many Democrats praising Clinton's stance although some, including Sen. Tom Harkin, D-Iowa, said the \$1.50 increase might not be effective if phased in over 10 years. Sen. Frank Lautenberg, D-N.J., announced that he will seek a \$1.50

per pack cigarette tax increase independent of any comprehensive bill.

Republicans also criticized Clinton for taking three months to weigh in with a general statement rather than a specific legislative blueprint.

"I don't think he really helped advance the ball," said Senate Assistant Majority Leader Don Nickles, R-Okla.

Administration officials said they believed it would be more effective to outline general principles and negotiate terms with Congress, rather than send up a specific package and let critics pick at the details.

They said meetings between White House staff and congressional leaders should begin soon.

Since announcement of the tobacco deal June 20, Congress has been largely in a holding pattern while awaiting Clinton's verdict. Some attorneys general who had negotiated with the industry _ and had been encouraged by the White House to do so _ privately had voiced resentment that the deal was languishing and was being attacked as a sellout to Big Tobacco.