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PCBs

Fish in area lakes contain chemical; officials disagree on danger of eating

• Fisherman's reaction, page 13.

EDITOR'S NOTE: Times intern Lorraine Ventura spent many hours this summer talking with local, state and federal officials about PCBs, a suspected carcinogen. In a three-part series beginning today, the Times reports her findings — including a description of the chemical, test results from area lake trout and the potential of PCBs as a health hazard.

By LORRAINE VENTURA

Eating trout from three area lakes may be a health hazard, but you'll have to make that decision.

The fish contain concentrations of PCBs, a suspected cancer-causing toxin, but state and federal officials disagree on how harmful eating contaminated fish is.

In addition to the cancer threat, large amounts of PCBs can cause chloracne (skin discoloration and lesions).

In 1975, tests of New York State waters by the Dept. of Environmental Conservation (DEC) showed trout in Seneca, Cayuga and Canandaigua Lakes as having PCB levels higher than the safe mark of five parts per million (ppm) established by the Food and Drug Administration (FDA). PCB levels in Seneca Lake trout ranged from 2.62 to 16.99ppm.

(Keuka Lake trout registered from zero to 1.77 ppm in the 1976 tests.)

Keuka was the only one of the four lakes tested that year. PCB levels ranged from one to five ppm.

In 1976, the Seneca Lake sample was divided into two groups. Fish 17 to 24 inches long had an average PCB level of 1.33 ppm, and fish longer than 24 inches had a 3.74 ppm average PCB level.

Canandaigua Lake's average for 17 lake trout in 76 was 9.12 ppm. Cayuga Lake was not tested.

Both the state Health Dept. and DEC officials agree that Seneca, Cayuga, Keuka and Canandaigua Lakes are in good condition and don't represent a serious health hazard.

Referring to the 1975 DEC tests, which found the average of fish sampled from each lake above the five ppm level but below 10 ppms, Ron Sloan, DEC senior scientist, said at the time the FDA felt the results "didn't represent a serious health threat.

"It's up to the individual on whether to take the risk" of consuming contaminated fish, he said.

PCBs, or polychlorinated biphenyls, are found in a variety of products like paint, inks and home appliances. They're hidden in carbon paper and microwave ovens but especially in transformers and capacitors where they are used as a flame retardant and electrical insulator.

The toxin is a clear, slightly oily, man-made liquid chemical first produced in 1929 by the Ionz North American manufacturer of PCBs, the Monsanto Co. The non-conducting, inflammable chemical is among the most stable organic mixtures known and is an ideal lubricant for industrial use.

Yet, for the same reason, PCBs don't break down easily in the environment and so pose serious health and pollution problems.

The Environmental Protection Agency (EPA) has banned production of the chemical, effective in 1979, because PCBs have caused cancer, genetic damage and death in test animals.

The one thing state and federal agencies, including the FDA, EPA, DEC and the state Health Dept., seemingly know about PCBs is what they don't know. And they agree on even less.

They say they don't have any definite answers about how long PCBs take to break down, how harmful they are or what the threshold level is before PCBs are toxic to humans.

The major difference of opinion surrounds the FDA's proposed lowering of the safe level of PCBs in fish from the five ppm (or five micrograms of PCBs per gram of fish) to two ppm. Because of recent data indicating PCBs may be more harmful than originally thought and because levels in freshwater fish have not decreased as anticipated, the FDA wants to further limit eating of contaminated fish by lowering the PCB tolerance.

While the FDA and EPA advocate lowering the maximum level of PCBs in fish, DEC senior scientist Ron Sloan said his department "has gone on record as not supporting the lowering."

Yet, the State Health Dept., whose recommendations usually follow's, supports the lowering. "We have thought PCBs have been very harmful from the beginning," said Dr. David Axelrod, director of laboratories and research. "We have recommended the two ppm level for some time in accordance with information" from research.

"State agencies testable over levels, they all say both two and five ppm levels are "relatively low" and aren't a health hazard.

"If someone eats only one meal or less a week (of fish from contaminated waters) I don't think that occasional ingestion will pose a significant risk," said Dr. Axelrod. "However, we're not going to recommend (to DEC) a ban but a limited ingestion of fish likely to be contaminated." Adequate, according to both DEC and the Health Dept., is the 1971 health advisory for New York State waters that advises people to consume no more than one meal a week of fish taken from the state's waters, and recommends that children and pregnant and nursing women not consume any.

"PCB levels have to be substantially above the FDA guideline (of five ppm) for the Health Dept. to recommend to DEC that a ban on fish be imposed," said Dr. Axelrod.

When asked what is considered "substantially above," he replied, "I guess in the neighborhood of 10 (ppm)."

Likewise, Elizabeth Campbell, FDA consumer safety officer, said: "We (at the FDA) definitely do not look a fish at two or five parts per million is harmful. It's the repeated systematic intake" that concerns the FDA. "An intake most people won't have."

TOMORROW: PCBs may be more dangerous than DDT

CHLORINATED HYDROCARBON LEVELS IN NEW YORK WATERS
1975-1976

LOCATION	SPECIES	NUMBER SAMPLED	YEAR	SIZE RANGE	PCB RANGE	PCB AVG.
SENECA LAKE	Lake Trout	10	75	23.2-30.3	2.62-15.99	(6.42)
CANANDAIGUA LAKE	Lake Trout	17	75	13.8-32.0	1.12-47.47	(8.78)
CAYUGA LAKE	Lake Trout	7	75	22.5-28.75	1.76-8.23	(6.15)
KEUKA LAKE	Lake Trout	18	75	7.4-25.7	0-1.77	(0.10)