

## State Guidelines and advice protect fish eaters

The Coosa River Basin is one of only two river basins in which the Georgia Department of Natural Resources (DNR) has banned commercial fishing. DNR maintains fish consumption guidelines for numerous species of fish in the basin including bass, buffalo, catfish and crappie. Specifics of the consumption guidelines are available in DNR's Guidelines for Eating Fish from Georgia Waters available online at [www.state.ga.us/dnr/enviro/](http://www.state.ga.us/dnr/enviro/) or through DNR's Wildlife Resources Division at 770-918-6418.

CRBI has posted state consumption guidelines at numerous local bait and tackle shops.

Anglers who eat fish from the Coosa and its tributaries can reduce their risk of ingesting PCBs by following a few simple guidelines:

• Eat smaller fish. Larger, older fish are more likely to be contaminated.

• Eat different species like crappie, perch and sunfish. Contaminants build up more rapidly in larger predators and bottom feeding fish.

• Skin the fish and trim away fat before cooking. PCBs tend to collect in fatty tissues.

• Cook fish so that fat drips away by broiling, baking or grilling. Deep frying removes some contaminants; pan frying removes few, if any contaminants.

# Fish data suggests PCB continue to leak to rivers

If you visit Floyd County's Lock and Dam Park on the Coosa River six miles downstream from Rome, you might run into Nicky Ratsamangkhn. The Laotian immigrant from Cartersville is there as many as three times a week, casting for her family's dinner.

She and her husband have a 10-person household to feed and the Lock and Dam fish are a major source of food. She said she eats as many as 10 Coosa River fish each week.

Regulars at the most popular fishing hole in the county say Ratsamangkhn is not unusual. The fish that fill five gallon buckets there don't get thrown back; they're headed for the frying pan.

Unfortunately, these fish meals can often carry toxic loads of PCBs. Analysis of PCB-levels in fish in the Coosa River from 1976 through 2000 show that PCB levels have declined dramatically and have approached safe levels in some species of fish, but a slow in the decline during the past decade has raised questions among state regulators.

From 1977 to 1984, PCB levels in fish went from an average of 36 parts per million (ppm) to 1.99 ppm, but during the 1990s levels have declined less rapidly, going from an average of .78 ppm in 1990 to .45 ppm in 2000. The slowing in the decline and the continuing frequency of detection of contaminated fish suggests that low levels of contaminants may still be entering the river either through PCBs contained in river sediments or from continued run off from contaminated properties in Rome.

Dr. Randall Manning, a toxicologist who heads Georgia's fish consumption advisory program for the Environmental Protection Division, said, "The question is: Could there be other inputs—low amounts (of PCBs) trickling into this river system that could be, not elevating what we are seeing in the fish, but, just keeping that decline from going on out of our detection range? We can't really answer that."

However, Manning's recent analysis of statewide PCB fish data show PCB levels and the frequency of detection in fish have declined in all river basins except the Coosa where frequency of detection has remained constant.

"That I believe is because of the original major point source and perhaps low continued inputs from runoff, or the old issue of what's in the sediments," Manning said.

In early 2002, GE took 158 sediment samples from Little Dry and Horseleg creeks and 92 sediment samples on the Oostanaula and Coosa rivers. The study revealed widespread contamination, but contamination levels were not high. Of the 158 samples taken on the creeks, 139 showed PCB levels below EPD's reportable limit of 1.55 ppm; on the rivers only one sample was above the state limit. The U.S. Environmental Protection Agency has conducted its own tests on the waterways and results of those tests should be made public soon.

In waterways and lakes PCBs tend to attach to soil particles and settle to the bottom where they become buried by additional sediment, but in

dynamic systems like creeks and rivers, these sediments are subject to scouring and re-suspension during flood events. Thus, a once-buried PCB can come back to haunt a river.

Testing of groundwater leaving the GE site and adjacent contaminated properties show the presence of PCBs. Since this groundwater eventually flows to area waterways, it may also be a potential source of low level contamination.

The extent of off-site contamination resulting from the sale of Pyranol to GE employees and the distribution of contaminated sludge from Rome's wastewater treatment facility to residents as garden fertilizer is unknown. Therefore, this could also be a source of continued contamination in local waterways.



The Lock & Dam on the Coosa River downstream from Rome is the county's most popular fishing hole.

## PCB Q&A

released into the environment, the types of PCBs that tend to bioaccumulate in fish and other animals and bind to sediments happen to be the most carcinogenic components of PCB mixtures.

### Do PCBs cause other health problems?

Yes. In studies of both animals and humans, PCBs have been shown to adversely affect the immune system, reproductive system, nervous system, and endocrine system. PCBs reduce the ability of the immune system to fight disease and infection making individuals exposed to PCBs more susceptible to pneumonia, viral infections and cancer. PCBs have been linked to reduced birth weight, conception rates, live birth rates, gestational age and sperm counts. PCBs have been shown to retard neurological development, resulting in learning deficits and altered behavioral patterns. PCBs disrupt the endocrine system by exerting effects on thyroid hormone levels which are critical for normal growth and development.

**Did we answer your question about PCBs? If not feel free to call us at the CRBI office at 706-232-CRBI for more information.**

