

## Mercury can wreak havoc on wildlife

Little study done on what some believe to be a global environmental issue

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### **Little study done on what some believe to be a global environmental issue**

During the late 1990s, scientists climbed 100 feet into trees in Colleton County and other spots in South Carolina and plucked 34 bald eaglets from their nests. They took samples of feathers and down and put the baby birds back. Then they tested these samples for mercury.

The results showed that the eaglets already had noticeable levels of mercury "at levels where you might find changes in behavior," said Tom Murphy, a state Department of Natural Resources researcher who participated in the study.

But what surprised Murphy and other researchers most was what they found in one of those eagles a year later: Mercury concentrations had increased 685 percent.

Although the state tests thousands of fish a year for mercury — and issues warnings not to eat many species because mercury levels are so high — only a handful of studies have been done on wildlife.

"I don't think we have much of an idea of what the risks to wildlife are in South Carolina," said William Bowerman, a Clemson University professor and a leading expert on the effects of toxins on birds.

Research dollars for wildlife studies are difficult to come by in South Carolina, he said. As a result, he does much of his research in the Great Lakes. "That's where the dollars are."

While a few studies have been done on alligators, snakes, wood storks and raccoons in South Carolina, many were done by researchers at a lab at the Savannah River Site. That lab recently closed because of budget cutbacks. College of Charleston and federal researchers at the Hollings Marine Laboratory are studying mercury levels in turtles on the Southeastern coast and are finding that turtles could be good indicators of local mercury problems, said Dave Owens, a biology professor. The state Department of Natural Resources has no ongoing studies involving mercury, a spokeswoman said.

Scientists, meanwhile, are doing extensive work on mercury in other states.

In 2005, Utah became the first state in the country to issue a health advisory against eating some kinds of waterfowl after researchers found high levels of mercury in ducks. Scientists say gold mining operations are a significant source of mercury pollution in that region.

In New York last year, biologists learned that songbirds such as the wood thrush had unusually high levels of mercury and that mercury pollution might be behind declines of that and other bird species. Scientists said songbirds were accumulating mercury from contaminated insects on the forest floor.

In Maine and New Hampshire, researchers have found loons and eagles with extremely high levels of mercury that might affect the birds' reproduction rates.

Some of these studies, though focusing on animals, have given scientists important clues about pollution trends.

In Florida, researchers took samples from birds in the Everglades and then sampled museum specimens collected between 1910 and 1980. The "old" museum specimens had low concentrations of mercury, but the "new" birds had levels four to five times higher. The findings suggest that mercury contamination has increased only in recent years.

Bowerman said mercury's effect on wildlife is becoming a global issue, especially as China and India build more coal-fired power plants, a prime source of mercury pollution. "There aren't many people looking into this," he said. "When budgets get tight, natural resource agencies really start to lose their funding quickly because you're dealing with animals, not people, and animals don't have their own advocacy groups."

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