

## Monitoring the Manatee for Oil Ills



Meggan Haller for The New York Times

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Allen Aven of the Dauphin Island Sea Lab, and his daughter Kayla, along with Nicole Taylor, left, a lab technician, looked last week for Bama, a 1,200-pound manatee in Scipio Creek off the Apalachicola River in Florida. More Photos »

By JOHN LELAND Published: June 20, 2010

APALACHICOLA, Fla. — To the people who know her best, Bama is a skittish creature: smart, a good traveler, does not mix much with her peers. On a recent afternoon, Allen Aven watched her from an anchored pontoon boat, counting the time between her breaths.

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A large gray snout belonging to Bama, a manatee, broke the water's surface.

"Breath," Mr. Aven yelled.



Mr. Aven is part of a team of researchers from the <u>Dauphin Island Sea Lab</u> in Alabama who are monitoring Bama and other manatees — massive aquatic mammals that are on the list of endangered species — for signs that they are being affected by the <u>oil spill</u> in the Gulf of Mexico. Mr. Aven and Nicole Taylor gathered water samples and recorded that Bama appeared to be eating regularly — she weighs in at around 1,200 pounds — and was not

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Bama is tagged with a transmitter,
which is tethered to her tail. More
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discolored, a sign of infection.

Until recently, biologists believed that manatees rarely ventured west of peninsular Florida, where, so far, no oil has appeared. But in 2007, Ruth Carmichael, who leads the Dauphin Island team, began documenting a relatively large summer migration of manatees to Mobile Bay, Ala. — leading them directly into and through the path of the oil from the Deepwater Horizon leak. From a couple of dozen to as many as 100 come to Mobile Bay for the summer, out of a total North American population of 5,000, she said.

As oil spreads into the bay, these travelers are now in danger of having their migratory routes and habitats contaminated, putting at risk a group that Dr. Carmichael believes may represent the scouts for the larger population.

"They're not here accidentally," Dr. Carmichael said.
"Maybe they're coming because of habitat loss in Florida.

So even though they're a small part of the overall manatee population, a loss of even one or two animals represents a large percentage of those in this group."

Using VHF radio transmitters and aerial surveillance, the researchers monitor the manatees' positions and the progress of the oil contamination, looking for signs of unusual behavior. But even if the manatees avoid oil in the bay, by the time they are ready to return to Florida in winter, their route back may contain deadly concentrations of oil and dispersants.

Because they raise their snouts to breathe, any surface chemicals or fumes would affect them directly. "These animals don't know to avoid it," Dr. Carmichael said.

The manatees' size makes rescues extraordinarily difficult, involving Sea World, the federal Fish and Wildlife Service, the federal Geological Survey and the Dauphin Island Sea Lab. Rescuers have to lift the animals by hand onto specially equipped boats, then transfer them by truck to a rehabilitation center in Tampa, Fla.

Jim Helland, a Mobile, Ala., businessman, has been trying to raise money for rescues. "We can't save all the wildlife," he said. "But maybe we can save these few." But at most they could rescue a handful in a season, and even these might swim back into the oil when released, Dr. Carmichael said.

"So much is unknown," she said. Manatees eat 10 percent of their body weight in sea vegetation per day. If oil clings to the sea grass, the animals could eat it, get the oil on their bodies and pass it to others by contact. After a 1983 oil spill in the Persian Gulf, between 38 and 60 dugongs, a species that is similar to manatees, died from exposure.

For Bama, that exposure is yet to come. She left her winter home near a nuclear power plant in Crystal River, Fla., just before the spill, and researchers expected her to head for Mobile Bay, as she did last year. But after quickly reaching Apalachicola, nearly 200 miles east, she has stopped. She may sense trouble in the waters ahead, Dr. Carmichael said.

As Mr. Aven recorded Bama's movements, a mullet jumped in the placid water behind her. The manatees, it seems, and the researchers, like the rest of this coast, are still waiting to see where and in what quantities the oil is going to wash in. "We've been bracing ourselves for this for eight weeks," Mr. Aven said. "I wake up every morning and say, 'Is this going to MOST POPULAR

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