

# AROUND THE MALL

SCENES AND SIGHTINGS FROM THE SMITHSONIAN MUSEUMS AND BEYOND

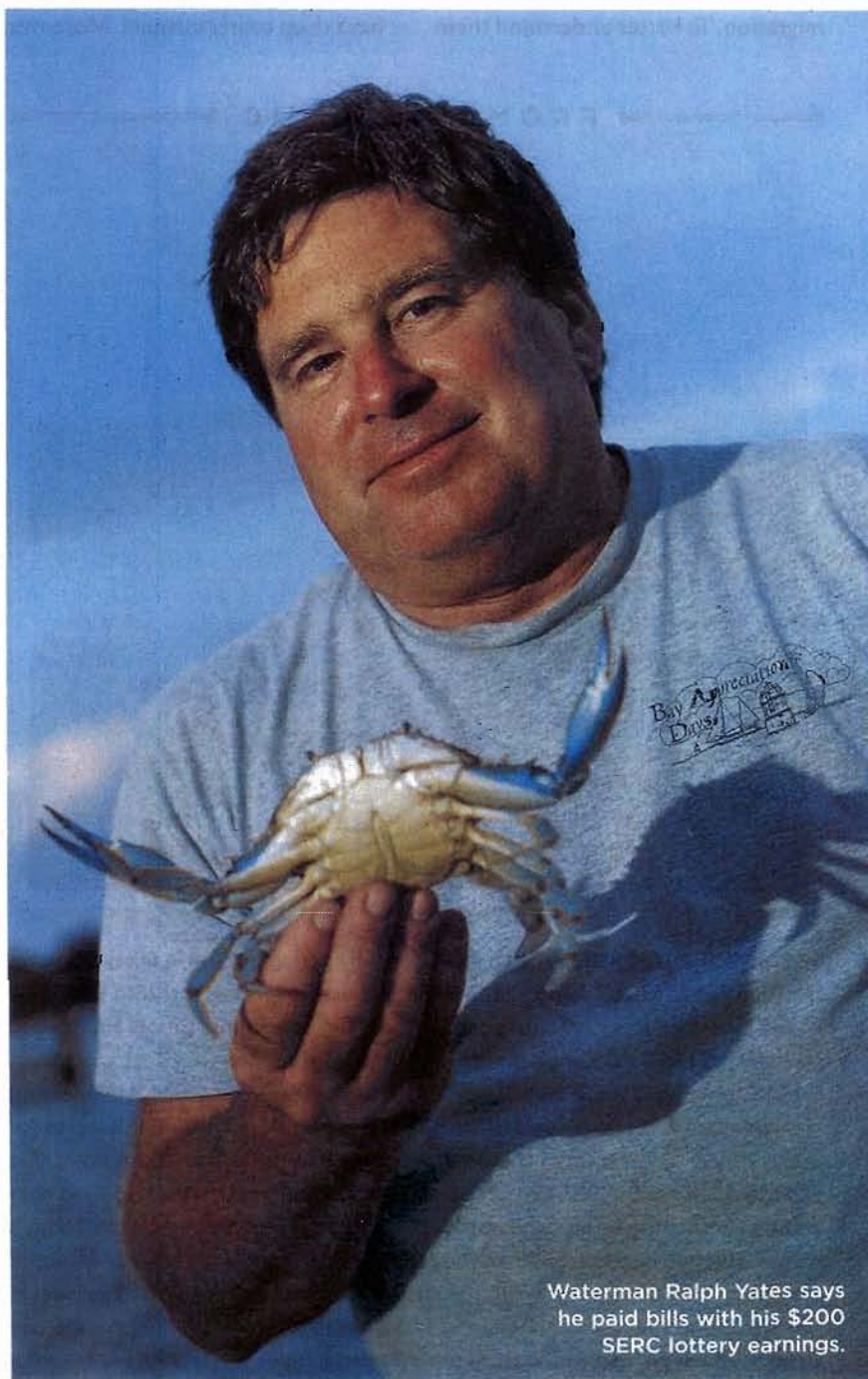
## HITTING THE CRAB POT JACKPOT

FISHERMEN HAVE CASHED IN HELPING SCIENTISTS STUDY THE RAPID, WORRISOME DECLINE OF BLUE CRABS IN THE CHESAPEAKE BAY

**R**ALPH YATES was plying the waters of the Chesapeake Bay last summer in his boat, *Critter Gitter*, when he pulled up a crab pot and found that he'd caught a winning lottery ticket. The trap held a female blue crab bearing a pink plastic tag that promised a reward and listed a phone number. Yates, a 51-year-old commercial fisherman, or "waterman" in Chesapeake parlance, dialed and got biologist Rob Aguilar of the Smithsonian Environmental Research Center (SERC) in Edgewater, Maryland. Aguilar noted where the crab was caught and mailed Yates a \$5 bill. Then, in December, Yates won a \$200 jackpot after SERC scientists selected his name from among the 80 watermen, recreational crabbers, crab packers and even a restaurant patron or two who in previous years ended up with a tagged crab.

Powerball earnings these are not; Yates says he used the money to pay off some bills. But the lab's lottery is part of a six-year study of Chesapeake Bay blue crabs aimed at countering the crustacean's rapid decline, which has been tied mainly to overfishing, pesticide and fertilizer runoff from farms and residential lawns, and habitat destruction. Over the past decade, the number of female blue crabs in the Chesapeake has plummeted more than 80 percent, jeopardizing the bay's \$50 million blue crab fishery, which is one-third of the U.S. market.

That crabs travel, sometimes great distances, is well-known to both fishermen and biologists. After mating in and around rivers in the upper Chesa-



Waterman Ralph Yates says he paid bills with his \$200 SERC lottery earnings.

JAYE CLEMMEN

peaks, female blue crabs somehow manage to swim, crawl or clamber more than 100 miles to the mouth of the bay. There, they spawn 750,000 to 8,000,000 eggs apiece, with less than 1 percent of the offspring surviving. (Male blue crabs are less peripatetic.) Females mate only once in their lifetime (at about 3 years of age), so a lot rides on their making the journey.

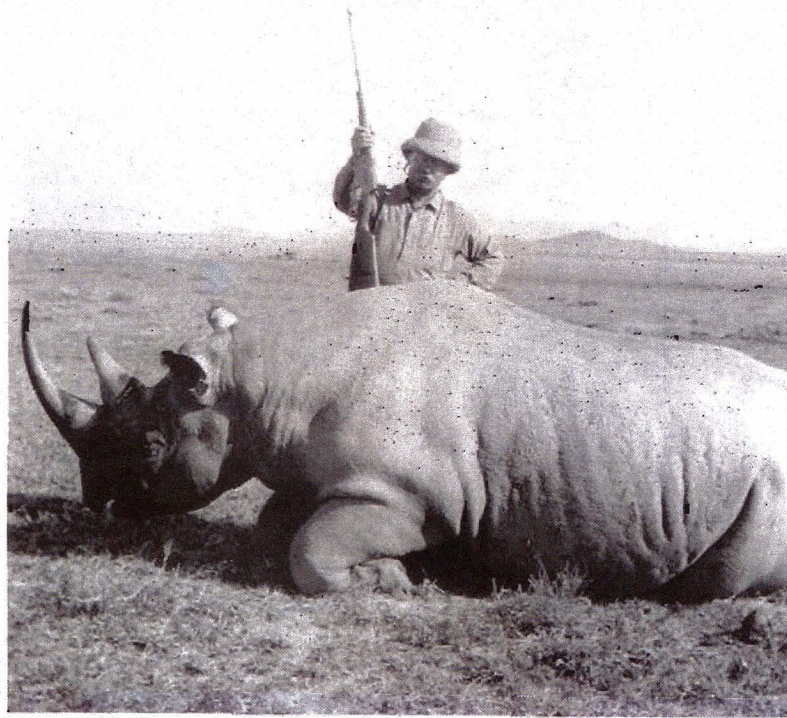
Until recently, little has been known about the route and timing of the female crabs' extraordinary, unseen migration. To better understand them

and the crab's complex life cycle, SERC researchers have since 1999 been buying bushels of live crabs and then tagging and releasing them in the upper bay. All told, they've released 3,500 tagged crabs, and some 600 have been captured and reported. A study by Aguilar and senior scientist Anson Hines, recently published in the *Journal of Experimental Marine Biology and Ecology*, shows for the first time the route that many pregnant females follow—along the eastern shoulder of the bay's deep center channel. Moreover,



One of SERC's pink-tagged crabs was recaptured 646 miles away in Florida.

## FROM THE ATTIC



**SPEAK SOFTLY, CARRY A BIG RIFLE** In the spring of 1909, a feisty 50-year-old Teddy Roosevelt, having just finished his second term as the 26th president of the United States, went to work for the Smithsonian Institution. He headed up the yearlong Smithsonian-Roosevelt African Expedition to collect specimens for the newly built National Museum of Natural History. Roosevelt, a pioneering conservationist who as president had set aside some 230 million U.S. acres for preservation, traveled with his son Kermit, three naturalists and 200 porters. The expedition bagged 11,397 birds, reptiles, fish and mammals, including 18 rhinoceroses. He shot the black rhino above that summer in the Sotik region of today's Kenya. The bull had "wheeled and faced round, evidently with the intention of charging," Roosevelt later wrote. Most of the Roosevelt specimens remain in the Institution's research collections, but a white rhino he shot in present-day Uganda is still on view in the museum's Mammal Hall. —BETH PY-LIEBERMAN

though some crabs begin the journey in July and August, peak migration occurs in September and October, with many reaching the mouth of the bay in November. "With this data," says Hines, "we can work with watermen and fisheries managers to reduce fishing pressure at places and times when the female crabs are most vulnerable." And, as Hines points out, strategies to help the blue crab, which is what ecologists call a "keystone" species, or a critical organism in the ecosystem, benefit other species as well.

This summer, the researchers plan to release 3,000 more tagged crabs in a river in the upper bay to assess population trends, with the goal of someday possibly restocking the bay with blue crabs. In addition to the \$5 bounties for reported crabs, the scientists are also throwing in a few crabs with tags offering rewards of \$100 to ensure an even greater response from crabbers.

Watermen and biologists have not always seen eye to eye, given the scientists' need to regulate the fishery and the fishermen's need to work it. But as crab stocks dwindle, the two groups' interests have increasingly aligned. Yates, a 14-year veteran who fishes 250 to 600 crab pots, says he was delighted to help out, and not just because he won the lottery. "Making a living as a waterman has always been hard," he says, "but it's been getting even more difficult lately." —JOHN F. ROSS