

IDEAS & TRENDS

Can Man Improve on Nature's Fishbowl?



John Amis/European Pressphoto Agency

A POOL, BUT NOT IN HIS BACKYARD The Georgia Aquarium in Atlanta is the world's biggest, a "Ritz-Carlton" for creatures like this beluga whale, says its benefactor.

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AQUARIUMS, like zoos, are weird places. We are uncertain they should exist at all, yet if they are there, we want to see them — a fact well known to cities that hope to attract tourists and revitalize commercial districts, and that have built some two dozen aquariums in the last quarter century.

Already more than 4.5 million people have visited the latest and most spectacular example, the Georgia Aquarium, which opened here in November 2005 to a boosterish chorus of oohs and ahhs over the number of gallons, the number of species, the catering by Wolfgang Puck and the IMAX-size tank windows.

The more popular and entertaining aquariums become, the more supporters insist that they educate and inspire conservation. And the more critics worry that aquariums are actually acting as enticing, crystal-clear substitutes for dying oceans.

In that regard, the Georgia Aquarium was particularly ambitious, building the world's biggest fish tank to accommodate a display of the world's biggest fish, the whale shark, which can grow longer than 60 feet and about which little is known.

Biologists warned that they could not yet explain the dappled creature's penchant for sinking to depths of 3,000 feet or more, a feat that not even a \$300 million aquarium could accommodate. But aquarium officials countered that the whale sharks — there were four — were saved from the dinner table, bought from Taiwanese fishermen who have an annual catch limit. Their presence, it was promised, would let researchers examine the species up close for the first time. Certainly the aquarium has increased public awareness of a species that few had heard of and that scientists have yet to observe mating or giving birth.

But in January, the attention shifted from positive to negative: Ralph the whale shark, an adolescent, died.

Responding to the outcry, Jeffery S. Swanagan, the aquarium's president and executive director, wrote in *The Atlanta Journal-Constitution* that the display had opened "the hearts and minds" of visitors, created a "special bond" between them and the animals and inspired the public to conserve threatened marine environments.

Critics argue that aquariums have the opposite effect: as exhibits grow more technologically sophisticated, they implicitly suggest that oceans are disposable. "What they say is, the natural habitat doesn't matter," said Randy Malamud, an English professor at Georgia State University and the author of "Reading Zoos" (New York University Press, 1998). "That the awe and mystery of the animal's life — which is so much dependent on the animal's living where it lives — that that's all irrelevant and can be dispensed with for our convenient consumption."

Bernard Marcus, the co-founder of Home Depot who built the Georgia Aquarium as a gift to the city, went so far as to promise that it would improve on nature, giving fish a leisurely and worry-free existence. "This is like going to the Ritz-Carlton," he said before the grand opening. "If you ask them do they want to go back to the ocean, you know what they would say? 'Are you crazy?'"

The details of Ralph's death, disclosed a little over a week ago, provided a glimpse of a not-so-luxurious life. Ralph, who stopped eating after the tanks were chemically treated for parasites, had been force-fed for months — apparently a common practice at aquariums, even for tiny creatures like sea horses.

“Sometimes in science we learn as much through death as through life,” Mr. Swanagan wrote. In Ralph’s case, one thing we learned was that he died of a perforated stomach, most likely caused by the feeding tube.

Scientists also discovered that a whale shark’s eye mechanics and food-filtration systems are more complex than was originally thought. Ralph’s death provided the first opportunity for a whale shark dissection, and an aquarium spokesman said several scientific papers will be published as a result.

Yet some scientists argue that the knowledge that can be gleaned from animals in captivity primarily improves their care in captivity.

“If you publish research from an aquarium, the first attack that will come upon you is the fact that these are artificial environments and you can’t compare, say, growth rates there with growth rates in the wild,” said Jason Holmberg, a primary investigator on a whale shark research project financed by the Earthwatch Institute, which promotes conservation and ecotourism.

“I think there is awareness value to aquariums,” he said, “But at some point it seems like we’re going for the ego factor and not the environmental factor.”

If aquariums are hard on fish, they provide a nurturing home for the rosy notion that humans can not only control nature, but improve on it. At the Audubon Aquarium of the Americas, in New Orleans, the Gulf of Mexico exhibit presents the underwater part of an oil rig (at one-quarter scale) as a thriving environment for marine life rather than a product of an industry that environmentalists say contributed to the rapid erosion of Louisiana’s wetlands, making the state more vulnerable to [hurricanes](#). The sponsors include Shell, Amoco and Chevron.

In an essay published in *The Believer* in 2005 before the Georgia Aquarium opened, Ginger Strand catalogs the relationship between aquariums and ruined ecosystems: the Monterey Bay Aquarium in California is on the old Cannery Row, made obsolete by the depletion of sardine stocks; the Alaska SeaLife Center in Seward was paid for largely by the Exxon Valdez Oil Spill Settlement Fund; in the Ocean Voyager exhibit in Atlanta, there are scant and inconsistent facts about whale sharks — they reach 45, 60 or 65 feet depending on which sign is consulted — but copious details on how they were airlifted from Taiwan (“via UPS!”).

But the aquarium café serves only sustainable seafood, and you can deposit your ticket and map in a recycling bin as you exit through the gift shop. “The implication is that

individual action” — rather than corporate responsibility — “is what counts,” Ms. Strand wrote.

John Fraser, the director of public research and evaluation for the [Wildlife Conservation Society](#) Institute, which oversees New York’s zoos and aquarium, said that critique bears no relation to what he sees. Corporations are made up of individuals, he argued — individuals who already know, according to his extensive eavesdropping on zoogoers, that factors like poaching are a threat to tigers. What they need is to see a tiger.

“It goes back to John Dewey, who said that learning is an experiential thing, not about shoving knowledge into an empty can,” he said.

“A lot of people would like zoos and aquariums to be a lot more aggressive in terms of our environmental advocacy,” he said, but sociologists have learned that moral indignation is not the only motivator to action: there must also be emotional and cognitive connections. If institutions give those too little attention, he said, the result is something the educational theorist David Sobel called ecophobia, a state in which the monumentality of the problem immobilizes the viewer.

An encounter with a living being, on the other hand, is a catalyst for action. “This,” Mr. Fraser said, “is the place where the love starts.”