



The Leafy sea dragon can hide out in seaweed and kelp beds disguised by their leaf-like appendages.

from outside are not allowed in the Aquarium) where you can choose from a variety of meals at The Grill, Naples Pizza or Buckhead Bakery. Sand Dollars, one of two gift shops in the Aquarium, is next door.

After your break, you may decide to test the water at the River Scout exhibit. Truthfully, the Tennessee Aquarium has the largest freshwater exhibit in the area, and the folks like Jeff Swanagan, the Georgia Aquarium's executive director, are quick to admit that: "We stayed away from doing a lot of freshwater exhibits because we believe the Tennessee Aquarium is the best freshwater aquarium in the world. And partly out of respect for them we went more heavily into the marine exhibits," he says. That said, the River Scout exhibit at the Georgia Aquarium offers a new facet to freshwater exhibits, featuring rivers like the Amazon in South America and the Niger in Africa.

Moss-covered trees call you into the setting. A river meanders overhead giving you a look at North American fish. Arapaima fish, the world's largest freshwater fish reaching up to 14.8 feet long, from the Amazon River Basin, swim in their own environment. And you'll get as close as you ever want to the red piranha.

After your river adventure you

Meet Dr. Fish, aquatic vet

BY KRISTINE F. ANDERSON

Howard Krum studies a hand-like image on the computer screen in the sparkling new lab. With a note of awe, he says, "Almost 99 percent of what we look at, no one's ever seen before, but this looks good."

Sometimes called "Dr. Fish," the 42-year-old Krum is the leading vet at the new Georgia Aquarium. Along with caring for Gasper, one of the Aquarium superstars, Krum and his staff guard the health of more than 100,000 animals living in the world's largest fish tank. His behind-the-scenes clinic has all the state-of-the-art equipment you would see in a hospital—mobile/portable ultrasound, digital endoscopies, anesthesia systems, digital microscopy and a complete surgery suite.

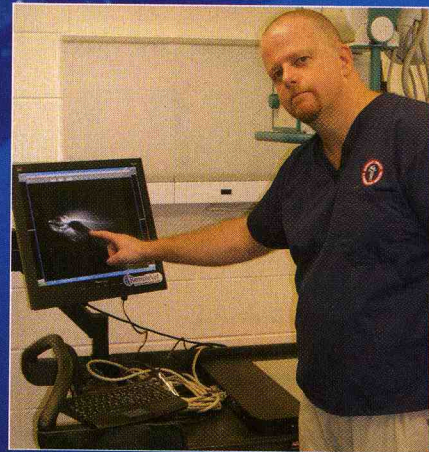
Sometimes, however, Krum and his technicians have to make some adjustments when caring for the almost 500 different species living in the Aquarium's salt-water and freshwater habitats. Rather than transporting the larger fish and mammals to the clinic, some procedures, such as ultrasounds, are done poolside with a portable unit and a large sling.

"We're working with many different species every day and learning as we go," says Krum, who specialized in aquatic medicine at the University of Pennsylvania's veterinary school. "Sometimes it's hard to know what's normal for these animals since there's not a lot of baseline data we can use for comparison."

Indeed, aquatic medicine—like other forms of medicine—is an inexact science.

If Krum thinks an animal may be sick or injured, technicians will usually try to isolate it for observation. "We have to understand what's happening before we can begin any kind of treatment," says Krum, who often confers with other aquatic vets around the country.

Much of what Krum and his staff do focuses on preventive medicine. He supervises a 25,000-square-foot quarantine facility about 15 minutes away from the Aquarium. Most of the new animals are sent there to be checked for possible disease or other health issues.



Aquatic vet Howard Krum uses the latest imaging equipment in the Aquarium lab.

The low-key vet also works closely with the Aquarium's water task force crew who monitor 8 million gallons of water daily. Using hand-held devices, they measure the oxygen levels and pH levels. "If the water quality is not right, the animals can get very sick," says Krum.

The water temperature in the different habitats varies and must be carefully monitored.

"If you change the water temperature, you change animals' metabolism. And if they become more active, then they eat more," says Krum, noting that the Atlanta Aquarium has the first full-time nutritionalist in the country.

In fact, all of the animals get a vitamin supplement along with their regular diet, which can include commercial fish chow, salmon steaks, mackerel, squid, shrimp and plankton. "We try to keep the animals well fed so they don't eat the smaller fish," notes Krum.

Along with the clinic technicians and Aquarium staff, Krum will also be working with students from the University of Georgia's College of Veterinary Medicine.

"This is a vet teaching hospital—it'll be a great place for students to learn, and we'll make a significant contribution to the study of aquatic medicine," he says.

Kristine F. Anderson is an Atlanta freelance writer.