

Spring 2006 Making WAVES



Welfare of Aquatic Animals and Natural Resources Advocate for Conservation Volunteer Pursuits Educational Opportunities

Welcome to the first issue of Making WAVES

If you are reading this, then we know you want to help make a difference in the world. We hope the information in this newsletter inspires you to help us or find your own way to make the world a better place.

The WAVE Foundation, designated as a 501(c)3 organization, is the independent, educational branch of the Newport Aquarium, which was created to further efforts to educate the community about marine life and the conservation of natural resources and habitats. The WAVE acronym stands for Welfare of aquatic animals and natural resources, Advocate of conservation, Voice of the community and Educational and volunteer pursuits.

Have a Good Time for a Good Cause

Please join us for the 5th Annual Party for Piaba on Wednesday, April 26th from 6:30 pm to 10:00 pm at the Newport Aquarium.

Guests will enjoy access to the Aquarium exhibits, a catered buffet dinner, exotic Amazonian cocktails, Ask a Biologist Q&A, and even the opportunity to Eat a Bug for conservation! There will also be a raffle and a silent auction with handmade items brought back from the Amazon basin in Brazil. Aquarium biologists will be on hand to answer questions about animals and conservation efforts!



Party for Piaba provides a unique opportunity for the whole family to experience the Aquarium in an intimate after-hours setting. Party for Piaba celebrates Earth Week and supports Project Piaba's conservation efforts to save the rainforest. A good time for a good cause!

Party for Piaba Tickets

\$20 annual passholders in advance

\$25 non-passholders in advance

\$10 children (3-12) in advance

All children under 3 are free

\$25 annual passholders at door

\$30 non-passholders at door

\$15 children (3-12) at door

[Click here](#) to reserve your tickets online or call (859) 815-1404. You can also purchase tickets at the door, but space is limited. Tickets are tax deductible. All proceeds go directly to WAVE Foundation to support Project Piaba and other conservation and education initiatives.

Project Piaba (Portuguese for small ornamental fish) is an organization that helps protect and preserve the Amazon Rainforest. By assisting the small communities who rely on fishing for their livelihood, Project Piaba prevents the Amazonian people from turning to cattle ranching, logging, or poaching - practices that are detrimental to the rainforest. Project Piaba saves the rainforest by saving the fish first. Their motto is simple: "buy a fish, save a tree."

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An Amazon Adventure

Newport Aquarium Senior Aquatic Biologist Eileen Flynn traveled to Manaus, Brazil, to participate in Project Piaba's 2006 research trip. Here is one of her travel entries.

It was 4:50 a.m. when the deeply moving sound of Luciano Pavarotti's voice began playing over the intercom... time to rise and shine. Opera was the captain's preferred method for waking his guests in order to make sure they "experience the jungle waking up." I saw pink dolphins swimming between the bank and the boat, a squirrel monkey eating some fruit, several parrots, and a pair of blue and gold macaws that flew over the boat as they traveled from their roost to forage in the jungle.



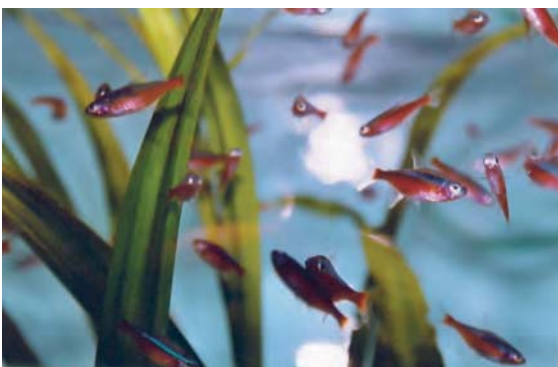
Breakfast (scrambled eggs, papaya, avocado and a slice of chocolate cake) was served at 5 a.m. Not being much of a morning person, it is rare for me to be excited so early, but I was ecstatic. I knew that I would have my first opportunity to assist Dr. Ning Labbish Chao with his research.



Dr. Chao, an Ichthyology Professor at University of Amazonas, Brazil, is the founder of Project Piaba. Piaba is a Portuguese word for small ornamental fish, like tetras, discus and angel fish. Project Piaba is a community-based research program in the Amazon River Basin, formed in 1989. The purpose of their research is to establish sustainable fisheries of piabas for aquariums around the world. By practicing techniques learned through Project Piaba's research, the local fishermen are able to make a living without over-fishing the area. If the fisheries are lost, the people are

forced to make a living by other means such as cattle farming, poaching and logging which are environmentally devastating to the rainforest.

When everyone finished breakfast, we boarded the motorized canoes and headed up into a small stream to an area called Zamula. Three hours later, after driving, dragging and pushing the canoes up the shallow stream around fallen trees, our trek was over. We arrived at an area where the stream widened, was about three feet deep at the center and had grasses and trees hanging over the bank. This was the spot Dr. Chao was looking for to conduct his research. Snorkel, mask and net in hand, I slid out of the canoe and into the warm, darkly tinted water. Many rivers and streams in this region are tinted by the leaf litter decomposing on the bottom; this stream was tinted brown but still very clear, reminding me of tea.



We all gathered around a large partially submerged log while Dr. Chao explained that he needed us to collect several cardinal tetras from this stream to conduct a population sampling. Dr. Chao was hoping to determine if the cardinal tetras in this stream were a separate population or if they were related to a group that was found in a nearby stream and they had been washed over during the high water season. If the cardinal tetras in this stream were indeed a separate population, they would possess a different set of genes than the population from the other stream.

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An Amazon Adventure continued

After we received our objective, we split off into small groups and began swimming through the shallow edges of the stream looking for cardinal tetras. In about five minutes the first cardinal tetra was spotted among the leaf litter in the sun-dappled water.

Once we spotted one, they seemed to be everywhere in the slow moving stream. Along with the cardinal tetras, we saw many other beautiful fish in this small section of the stream including checker-board cichlids, two-stripe pencilfish, blue-eye catfish and Amazon dwarf cichlids. It took about an hour for us to collect all the cardinal tetras that Dr. Chao needed for his sample population study. Determining genetic diversity among different populations of cardinal tetras can aid in the formulation of a management program that will help ensure that the people of this region can continue to make a living in an environmentally friendly way for years to come.

Upon returning to the boat, we enjoyed a lunch of grilled pacu and pineapple on a sand spit in the middle of the river. In the late afternoon, the oppressive heat limits activities. We did some fishing in the shade by the bank and I caught a small black piranha. After fishing, we had a dinner of piranha, rice, beans, salad and passion fruit pudding for dessert.



For our night outing, we went a short distance up the same small stream from earlier in the day. It was amazing the difference in animals you find at night using a small spot light. There were caiman everywhere, mostly speckled and a few black (which can grow to 10-12 feet in length). We also saw arrowanas, hatchet fish, and angel fish hiding under branches by the shore.

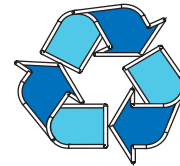
Eileen will be available to share more stories about her Amazonian experience at upcoming Aquarium events.

You Can Make A Difference! Reduce, Reuse, Recycle

Every week approximately 20 species of plants and animals become extinct.

Did you know:

- ♻️ Rainforests are being cut down at the rate of 100 acres per minute
- ♻️ One tree can filter up to 60 pounds of pollutants from the air each year
- ♻️ Shade trees outside your home can reduce the temperature inside by 10 to 20 degrees (saving you considerably on your electric bill)



Americans use about 680 pounds of paper per year, per person. When you throw something away, it doesn't go away! Trash is burned, buried, recycled or dumped in our rivers or oceans. The amount of wood and paper we throw away each year is enough to heat 50,000,000 homes for 20 years. We can all help reduce the pressure on our remaining forests by taking a few simple steps to reduce our own paper use.

At Home:

- ♻️ Use your own cloth bags at the grocery
- ♻️ Use cloth napkins and towels, and avoid disposable paper plates and cups
- ♻️ By recycling a three foot high stack of newspapers, you can save one tree (your old newspapers become new newspapers)

At Work:

- ♻️ Recycle office and computer paper
- ♻️ Use scrap paper for informal notes
- ♻️ Print on both sides of the paper
- ♻️ Re-use manila envelopes and file folders

Helping Sea Turtles at a North Carolina Hospital By Jolene C. Hanna, BS, RVT

As the Aquatic Animal Health Specialist at the Newport Aquarium, I work with animals of all kinds, from fish to birds, otters to snakes. Recently, I received an amazing opportunity to spend a week in Topsail Beach, North Carolina, volunteering my time at the Karen Beasley Sea Turtle Hospital (KBSTH). Jean Beasley, one of the most vibrant individuals I've ever met, runs the facility and has dedicated her life to the medical management and rehabilitation of injured sea turtles.

The turtles, found along the North Carolina coast, are brought to the hospital with numerous problems. Once under Mrs. Beasley's care, she assesses the animals' overall health, their injuries are addressed, medical treatments are initiated and their dietary and nutritional issues are managed. The primary intention of rehabilitating the animal is



for eventual release. Mrs. Beasley works along with several veterinarians in the area as well as the North Carolina School of Veterinary Medicine in order to provide each individual animal the best medical care available. All of the funding required for their care comes from donations, and all of their staff required to manage the thirty or so sea turtles within the hospital facility, are volunteers.

Sadly, I realized that humans cause an overwhelming majority of the injuries afflicting the sea turtles brought to the hospital. The range of the human involvement with these injuries comes from something as simple as litter washed out to sea by the tides and magnifies to actual physical injuries inflicted by angry fishermen. Another harsh reality is that of the seven species of sea turtle: loggerhead, green, leatherback, olive ridley, kemp's ridley, hawksbill and

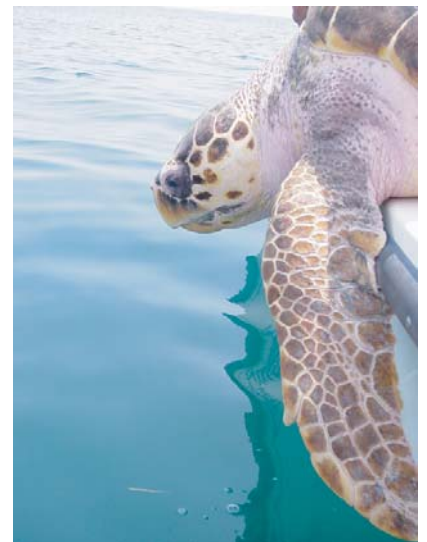
flatback, all are currently listed as either threatened or endangered.

The work that Mrs. Beasley has started at the hospital is emotionally demanding and physically draining yet extremely rewarding. A turtle's rehabilitation can take anywhere from weeks to several years with each individual requiring a range of medicinal remedies as well as good old TLC. During my stay I was honored to be a witness to one of the most positive events that occurs at the hospital... a sea turtle release!

After being deemed healthy, able to survive and forage on their own, seven sub-adult loggerheads were released off the Topsail Beach coastline on September 15, 2004. One of the seven released, "India," had been in the hospital since May 31, 2002. It took over two years of sweat, tears and dedication to bring this turtle full circle. India arrived at KBSTH in terrible condition. She had extensive fractures in her carapace (shell that covers the back), plastron (shell that covers the belly) and cranium (head) - all consistent with boat propeller injuries. The wounds were treated daily with saline flushes and then covered with antibiotic ointment to prevent further damage from bacterial and fungal infections.

Slowly, over the time of her hospitalization and treatment, tissue formed and closed the open wounds. The underlying truth is that turtles are cold-blooded reptiles that do not heal from injuries quickly. They are so dependent on their external environment for the heat needed to maintain an adequate metabolism, that many would die without human intervention.

It is up to us, as individuals and as a society, to work together towards the survival of this amazing species. Sea turtles are a legacy dating back to the dinosaurs and represent the overall health of our oceans. Jean Beasley is an excellent example that it takes only one individual to make a huge impact on the survival of an entire species.



Thank you for joining us in our pursuit of the WAVE mission. Please look for the next issue and you'll find even more ways that you can make WAVES for the planet.