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Sirenian Voice —

Sirenian Voice is the official newsletter for Sirenian International, Inc., a grassroots, non-profit organization of people who share a dedication to manatee & dugong research, education, and conservation through inter-cultural collaboration. We are a partnership of scientists, students, educators, conservationists, and the public. We believe in the process of integrating science, education, and culture to catalyze positive change in our shared environment, Mother Earth. Won't you please add your voice to ours?

News from Maya – Our Antillean Mermaid Ambassador

Manatee rehabilitation in Belize

Sarteneja, Belize—Belize is well known for its marine wildlife and in particular for its West Indian Manatee. However, these gentle creatures are being increasingly impacted by human activities, and over the past five years, four manatee calves have been rescued and successfully rehabilitated through the Belize Marine Mammal Stranding Network (BMMSN). Three of these orphans, Woody, Tiny, and Buttons, entered the manatee rehabilitation program at Wildtracks, a non-profit conservation organization located near Sarteneja in north-east Belize.

Woody spent almost two years in rehabilitation before he was successfully released into Southern Lagoon, a Wildlife Sanctuary for manatees in central Belize. A continuous tracking and monitoring program under the direction of Wildlife Trust has monitored Woody since his release. Today, he behaves like any wild manatee in Belize – wary of humans, but interacting well with other manatees in the area.

In 2004 Wildtracks began preparing Tiny for release back into the wild. Weighing in at only 46 lbs when first rescued in September 2003, Tiny grew to over 350 lbs during the first thirteen months of rehabilitation. In 2004, she was approximately 180 cm long from tip of nose to tip of fluke. By this point in time, Tiny spent half her time free-ranging in an enclosed lagoon system, searching out seagrass beds and exploring the mangrove fringe – but seldom went too far from her pen and the 0.8

liters of milk she drank at each feeding. In October, 2004, Tiny was joined by another orphaned calf, Buttons. Thought to be six or seven months old, Buttons was found in shallow water – weak, thin, and badly cut by the propeller of a boat. Soon after her arrival, she learnt to take milk from a bottle and showed significant gains in strength, becoming more active as each day passed. Her wounds slowly healed and she was also given the opportunity to free-range in the lagoon system, where she declared her independence and may still hang out, today. In April 2005 Tiny was released into Southern Lagoon. Like Woody, Tiny is being tracked and monitored by Wildlife Trust.



Tiny feeds on aquatic vegetation in Sarteneja, Belize. Photo by Wildtracks



Buttons 2004, Note 3 scars from a boat strike. Photo by Wildtracks

With the increasing boat traffic in the shallow waters off the coast of Belize, it is inevitable that more calves and injured manatee will be rescued in the future. A proposal is therefore in the pipeline to upgrade the facilities at Wildtracks to a series of permanent pools and pens, purpose-built for manatee rehabilitation, using the knowledge gained over the past five years to ensure that calf rearing is as stress-free as possible for both the calves and the volunteers who give their time and enthusiasm to ensure the continued

survival of this endangered species. If you would like to make a worthwhile contribution by sponsoring one of the three manatee pools, and be kept up to date on their occupants, please contact Wildtracks@direcway.com.

BMMSN Members Zoë Walker and Angeline Valentine contributed to this article. Sirenian International supports manatee rehabilitation projects around the world through our Small Grants Program.

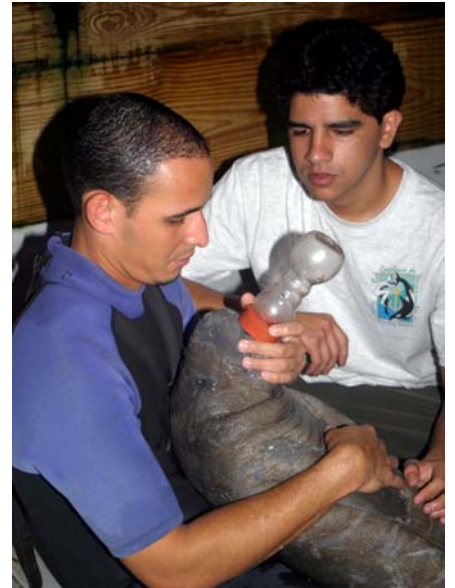
News from Maya Continued...

A new manatee kid in town—Siani

San Juan, Puerto Rico—The Caribbean Marine Mammal Laboratory at Universidad Metropolitana in San Juan received a new manatee calf on Saturday, 20 November 2004. The small female calf was rescued from Puerto Rico's northwest coast where it had been seen swimming by itself near an old sugar cane pier since the Wednesday before. A rescue plan was drafted for Saturday and by 4PM biologists Nilda Jimenez and Maritza Vargas captured the calf. With the help of DNER Rangers, they transported it to the Caribbean Stranding Network facilities.

The orphan measured 3 1/2 feet in length and weighed 50 lbs. She arrived in a very weak condition and dehydrated, with a few scratches on her body, indicating many days alone prior to her rescue. However, all wounds were superficial and easily treated, said veterinarian Antonio L. Rivera-Guzman, who is in-charge of the medical care of the animal. Laboratory personnel, composed of care-takers, university students and volunteers, immediately began a 24-hour watch. Treatment for bacterial infection and dehydration began and caretakers bottle-fed the calf every three hours with a special diet for premature human babies. The calf showed a good suckling reflex and took to the bottle without difficulties. Probabilities for survival were estimated at about 40%.

The group of volunteers dealing with her initial care chose the Taino Indian name of Siani for the young calf. Siani means "woman" in Arawak language. Siani joins Iani, another female calf of four months of age rescued in Ponce on Puerto Rico's south coast in July 2004. West Indian manatees are an endangered species in Puerto Rico and throughout their range from Florida to Brazil. Scientists estimate that less than 250 remain in Puerto Rico. This low population number makes the rescue, rehabilitation and release of every orphan, like Siani and Iani, very important for survival of the species. Article contributed by Antonio Mignucci-Gianni, Ph.D, Caribbean Stranding Network (<http://rcv.caribe.net>), 787-399-8432, mignucci@caribe.net



News from Conch — Our Florida Mermaid Ambassador

How sensitive are manatee whiskers?

Sarasota, Florida—Hugh & Buffett, two West Indian manatees that reside at Mote Marine Laboratory in Sarasota, Florida, are working with researchers Gordon Bauer, Roger Reep, Joseph Gaspard, and Deborah Colbert to answer this question. In a series of tests, these scientists present two tactile targets made out of clear acrylic to each manatee. One target has very fine grooves and ridges of equal widths etched into it, and this target, called the standard, is always the wrong answer. The other target has grooves and ridges that are much wider than the standard and this is the correct target. Hugh and Buffett have been trained to feel each target with their whiskers and then select the target with the wider grooves and ridges. When the manatees are able to reliably perform this test, the grooves and ridges on the correct target are decreased in width. This process is repeated until the manatees can no longer tell the difference between the standard and the correct target and the researchers find the threshold of their whisker sensitivity. But there is a catch to this process, in order to be sure that the manatees are not using their eyesight, Hugh and Buffett are trained to wear a blindfold throughout the tests!



And how did Hugh and Buffett do? Fantastic! Their whiskers are as sensitive as the fingertips of human Braille readers! To learn more about Hugh and Buffett and this research, visit the Mote Marine Laboratory and Aquarium web page <http://isurus.mote.org/~hughbuffett>. Article submitted by Debi Colbert, Mote Marine Lab, Florida

News from Yara — Amazonian Mermaid Ambassador

Manaus, Brazil—Unusually large amounts of white pigmentation make this new Amazonian manatee baby, born 3 February 2004, very special to her care-givers in Brazil. Her name will be chosen in a campaign organized by INPA and AMPA, with the financial support of Petrobrás, the Brazilian Oil Company, and support from the local newspapers, in the same way it was made for the two previous calves, Erê and Tuã. This campaign is a very good opportunity to raise the awareness for the conservation of the Amazonian manatee in the Amazon State, and is mainly directed to children from 7 to 14 years old. Since the birth, which was broadcast in real time on the local TV channels, we are receiving lots of phone calls asking about the campaign to choose the baby name. We are expecting a large number of visitors and participants and more protection to the specie.

Photo and article by Dr. Vera M.F. da Silva, Laboratório de Mamíferos Aquáticos-LMA, Av. André Araújo, 2936, Petrópolis, Manaus, Am, Brasil, Telefax: 55-92-6433184.



News from Elandra—Our Dugong Mermaid Ambassador

Sirenian International Supports Dugongs in Palau

Koror, Palau—The Palau dugong population is not only small (50-200 individuals) but also unique by virtue of the fact that it is the most isolated population in the world, located 800 km from the dugongs of Irian Jaya and the Philippines. Dugongs were heavily hunted here following World War II, by means of dynamiting and spearing from motorized boats. Currently dugongs are threatened by the destruction of the seagrass beds on which they depend for food. Much traditional knowledge and respect for the species has been lost in Palau over the past 50 years. There is currently a backlash against heightened conservation efforts in the country, which aim to protect rare and endangered marine and terrestrial species from over-exploitation. In 2003, funding from Sirenian International enabled us to collect information in Koror State waters on incidental sightings of dugongs, local knowledge about dugongs, their diet, and genetics. Seagrass beds were mapped at one of the most important feeding areas for dugongs in Palau.

Most recorded sightings of dugongs were from people in motorized boats. Usually lone animals or cow-calf pairs are seen, with the largest group observed consisting of seven animals seen by a local fisherman. Occasionally, a group of dugongs have been sighted from a light aircraft. All informants noted changes in dugong behaviour over the past five years. Dugongs appear to stay close to reefs or wrecks in deeper water during the daytime, moving closer inshore at night to feed in the shallows. This has long been considered a deliberate avoidance strategy so that the animals do not come into close proximity to motorized boats or poachers.

From an ecological perspective, the greatest priority for dugong conservation in Palau is the inclusion of feeding areas in a national network of protected areas. In November 2003, the government passed the legislation for such a network and it is hoped that all conservation groups will encourage communities to include seagrass beds in marine protected areas in the near future. The reduction and restriction of boat traffic in particular areas is currently an issue under consideration by Koror State Government as it develops its Rock Island Management Plan. Article submitted by Patricia Davis and Jason Kuartei, C3, Palau



Elandra, our Dugong Ambassador, Photo by Doug Perrine, Seapics.com

The mission of Sirenian International is to promote the long-term conservation of manatee and dugong populations around the world through research, education, and inter-cultural collaboration.



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Creature Feature: Rehabilitation & Release in Florida

The Florida manatee is an endangered species that is protected under the Endangered Species Act (ESA) of 1973 and the Marine Mammal Protection Act of 1972. The U.S. Fish and Wildlife Service (Service) has the lead responsibility for the recovery of the manatee. Included in the Service's recovery initiative is the Manatee Rescue, Rehabilitation, and Release Program (Program).

The goal of the Program is to release manatees back into the wild as soon as feasible and implement all necessary actions to ensure the greatest chance of success to conditions in the wild. Since its inception, the Program has rescued over 670 manatees, and released nearly 220. During 1991-1992 the Service and the Program partners developed captive manatee release criteria. Criteria were based on manatee age, origin, medical status, and time in captivity resulting in four release categories. Upon medical clearance for release, some manatees are outfitted with a satellite tag, VHF tag, and a sonic belt to monitor their introduction and progress to the wild. Post-release monitoring is conducted on those animals considered "high risk" (e.g., naive animals with little or no experience in the wild) or those individuals the Program partners feel may advance our knowledge of the wild population. The monitoring effort is conducted under the auspices of the Program's Manatee Rehabilitation and Release Partnership (MRRP).

One animal that has notably changed our opinion about marine mammal adaptability in the wild is the manatee known as "Stormy". Stormy was born in captivity in 1985. He spent over a decade of his captive life at the Lowry Park Zoo in Tampa, Florida. In February 2002, after 17 years in captivity, Stormy received his first taste of what it was like to be a wild manatee when he was released at Blue Springs in Deland, Florida. Stormy spent just over three weeks in the spring with other wild manatees until he was taken back to Lowry Park Zoo as a conservative approach to his reintroduction process. Back in captivity, Stormy was given the type of vegetation he would find when again released and was also exposed to slightly colder water temperatures to introduce him to a more natural life cycle of wild animals.



On February 24, 2003 Stormy was again fitted with tracking equipment (see photo above) and released back into Blue Springs. Monitoring continued for one year in which Stormy was observed socializing with other wild manatees, utilizing the habitat, foraging on local vegetation, drinking fresh water, and returning to Blue Springs the following winter for warm water refuge. Stormy's final health assessment was conducted in early spring of 2004 where his attending veterinarian gave him an overall good health assessment, indicative of wild manatees after a winter season. Deemed a successful release, all tracking equipment was taken off Stormy and he was released back into the spring area to live his life without additional monitoring. Researchers will continue to look for Stormy each winter at Blue Springs in order to document his progress over the years. Stormy's story is a significant contribution to advancing our understanding of the ability of manatees to adapt to the wild. For more information regarding Stormy and other released manatees please visit our website at <http://www.wildtracks.org>. Article contributed by Nicole Adimey, Biologist with the USFWS, Florida

BIG SLOPPY MANATEE KISSES TO OUR CHARTER & MAJOR CONTRIBUTORS: Howard & Michele Hall, Dr. and Mrs. William E. Evans, Jack Burt, Sue Otto, Sandra Rosenberg, Thomas W. Evans, Dr. Jane M. Packard, The Martin Packard Family, Kieran Carew, Mr. and Mrs. James H. Self, Heather Van Wagner, Hayley VanderStel, Brian Casey, Susan and Rodney Wagner, Mike Winkler, Patricia Witt, Karen Downen, Clifton Jones, Mary Turlington, Cheryl Lechtanski, David Pouliot, Dolphin Wild Eco-Adventures, Doug Perrine, Scott Carle, John Patrick Sullivan, Tim Hayes, and Majja Gadiant-Heberlein.

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