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LOCATION

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ANIMALS

Family: Mustelidae

Species: *Pteronura brasiliensis*

Common Name: Giant River Otter

Capacity: 2.2.4

DESCRIPTION

The Giant River Otter Exhibit winds along the walkway of the exhibit. The layout was incorporated into the Amazon and Beyond Exhibit to allow visitors an up-close view of the animals. Educational signs and kiosks are provided to inform visitors of the otters' endangered status and conservation work being performed. At the start of the exhibit by the north end, the view is from a bird's-eye vantage point and slopes gently down towards eye level at a viewing trellis. A bridge is located in the middle that passes over the man-made river of the exhibit. The two halves of the exhibit can be viewed from this vantage point. A sloping waterfall transits from the higher elevated south end of the exhibit into the lower elevated north section. As with the rest of the exhibit, ambient background music is played through an outdoor audio system throughout the walkway and trellis area. This exhibit is part of the master plan, immersing zoo guests in the Amazon experience.

SIZE

Encompasses approximately 4000 m² within the Amazon and Beyond Exhibit. Amazon and Beyond is approximately 117359 m².

COSTS

USD 3,300,000 including 15% for design.
\$42 million for Amazon and Beyond, thereof \$3.3 for Giant River Otters, thereof \$510,000 for its design.

OPENING DATE

7 December 2008

DESIGN

Beginning: 2005



Giant Otter adult and pup © Zoo Miami, 2011



Giant Otter exhibit physical model © Zoo Miami, 2011

- Architects: Jones & Jones, Seattle, WA
- Interpretives: Lyons/Zaremba, Boston, MA

CONSTRUCTION

Beginning: 10 August 2006

- General Contractor: PCL Construction, Orlando, FL
- Interactives: Design Craftsmen, East Downing, MI

PLANTS

The plantings in and around the Giant Otter exhibit were selected for this site, although the Amazon and Beyond area has several tree species that were preserved. The exhibit plants were selected for their hardiness because giant otters spend a portion of their day digging in and rubbing on substrates. The largest and most durable plantings on the exhibit are Fakahatchee Grass (*Tripsacum dactyloides*) and several species of



Exhibit Access © Zoo Miami, 2011



Breeding Den © Zoo Miami, 2011

Bromeliads. Along the berms Jacaranda (*Jacaranda brasiliensis*) and Queen Palm trees (*Syagrus romanzoffiana*) provide shade to the exhibit below. Yellow ginger (*Cordia lutea*) and Heliconia (*Heliconia caribaea*) add to the lush foliage.

The [plant list](#) specifies the Latin names of the plants used for this exhibit.

FEATURES DEDICATED TO ANIMALS

The exhibit features and the land to water ratio encourage the otters to perform natural behaviours, including basking, swimming, playing, digging

and resting. The otters can be seen utilizing the varied substrates and plantings on the banks, climbing up the rocks onto land, as well as swimming around the man-made and natural logs and rocks in the river. The substrates used include soil, soil stabilizer and daily added sand for latrine use. The soil stabilizer was added to prevent soil from washing into the pool, although it breaks down in the latrine area and is not ideal for an entire exhibit. The remainder of the exhibit substrate is natural soil, which provides the otters with ample area for digging, water pressing and comfortable resting spots.

FEATURES DEDICATED TO KEEPERS

The exhibit holding area is accessed by a chute for the otters and double service doors for the keepers. The service doors are large enough to bring small equipment in, although the configuration prevents large equipment use.

The keepers can place a peg scale into the chute to get monthly weights. Recently, Zoo Miami maintenance staff retrofitted a crate into a squeeze cage which can be secured in the chute. This will allow staff to train for certain husbandry behaviors in protected contact.

Along the length of the animal holding is the shift hall, with double lock service doors leading in from the service area. Within the hall, double lock service doors lead into the otter holding pens. This facilitates cleaning and maintenance of the otter area. Outside the service area, keepers can access the otter kitchen. The kitchen has a storage closet, sink, refrigerator and some counter space for food preparation. A close circuit camera system is incorporated into the kitchen to remotely monitor and record the otters without disturbing them. Cameras are located in the breeding dens and plans are to further expand this capability into the breeding yard and stalls.

A one-way window is located in the kitchen for the keepers to observe the otters in the breeding yard without disturbing them. There are also two remote feed chutes, one in the 5th pen and one below the one-way window in the kitchen. These allow for non-invasive feeding during post parturition.

FEATURES DEDICATED TO VISITORS

There is a bridge that crosses over the exhibit. Visitors can see the otters as they swim and climb underneath, using the waterfall slides on exhibit. Two viewing windows and a viewing port is located under the trellis so visitors can get an underwater view of the otters and interact with them up close. The otters are quite inquisitive and will often swim back and forth along the windows. Once a day, a keeper will have a "Keeper Talk" to interact with visitors and answer their questions as well as provide the otters with their midday diet.

Additional exhibit features include an integrated sound system with ambient music, interactive kiosks and informational graphics.

INTERPRETATION

The Giant River Otter exhibit is located in the "Atlantic Forest" area of the "Amazon and Beyond" exhibit. Several educational kiosks located along the exhibit path inform about otter research and conservation. Kiosk 1 contains signage with basic animal facts about the otters. The middle section of the kiosk contains an interactive scent module that lets visitors smell the distinct musk that the otters produce compared to other scents. By lifting any of the four flaps, visitors can smell the different scents. Kiosk 2 is located on the bridge that passes over the otter exhibit. It is next to a deck mounted telescope that lets visitors view the otters up close. The kiosk informs visitors how scientist use the devices to observe otters from afar. Kiosk 3 located by the trellis, plays an audio-sound file about otter research in the wild. Kiosk 4 is a picture flip book showing distinct physical characteristics of otters and how scientists can identify them. Kiosk 5 is a slot machine type kiosk that collects change for otter conservation. Visitors can insert a quarter to start the slot machine wheels and press the buttons to stop them. By lining up the pictures, the machine will pay out various sounds that the otter makes.

MANAGEMENT

The zoo exhibits technician is responsible for the upkeep of kiosks and interactives. Horticulture maintains landscaping along public walkways. Zoo keepers maintain the exhibit space and holding area(s). The chute leading from the exhibit to holding provides the keepers with space to train and routinely weigh the otters.

Along the length of the animal holding is a shift hall with double lock man doors, leading in from the service area. Within the hall, double lock man doors lead into the otter holding pens. This facilitates cleaning and maintenance of the otter area.

The pen configuration can be easily changed with the multiple guillotine doors built into the exhibit holding. With this feature, the otters can easily be separated for fecal collection and training. Behavioural enrichment can be brought in through the man doors, although the doors leading into the breeding pen are not aligned, which limits the size of items that can be brought into that area.

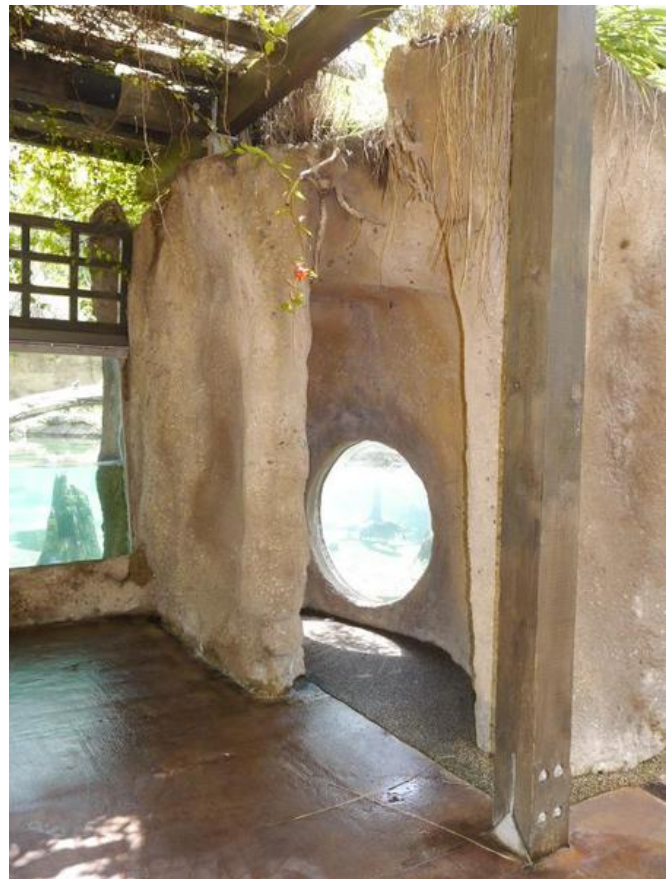
RESEARCH

Zoo Miami participated in endocrine analysis of the adult Giant River otters. Samples were sent to CREW Cincinnati Zoo for analysis.

CONSERVATION

The Pantanal region is a large wetland shared by Paraguay, Bolivia and Brazil. There are two otter species that inhabit this area, the endangered Giant Otter (*Pteronura brasiliensis*) and the Neotropical River Otter (*Lontra longicaudis*).

Zoo Miami's Conservation and Research Fund contributed \$2000 in grant money to Manoel Muanis to aid in his research to study the habitat requirements and feeding habits of the two otter species in relation to habitat destruction, degradation and a more recent trends of ecotourism. This information will be used to help shape species management and ecotourism regulations.



Viewing Port © Zoo Miami, 2011



Kiosk © Zoo Miami, 2011