

Hung Do, Zoo Exhibits Technician, Zoo Miami (author)
Julie Lindenmayer, Senior Zookeeper - Birds, Zoo Miami (author)
Jing Fang and Monika Fiby, editors for ZooLex

LOCATION: 12400 SW 152nd street
Miami, FL 33177 U.S.A. Phone:
1-305-5210400. Fax:
1-305-378-6381. URL: <http://www.zoomiami.org>.

ANIMALS

Family: Accipitridae

Species: *Harpia harpyja*

Common name: Harpy Eagle

Capacity: 1.1.1

DESCRIPTION

The Harpy Eagle Encounter was incorporated into the Amazon & Beyond Exhibit to offer visitors a chance to view and learn about these birds. The exhibit provides the birds with ample space to fly, and gives them enough space to feel comfortable around patrons. The exhibit has two sides that are joined by a fly-over where the birds can perch directly above visitors as they walk across the bridge below. There are a few large trees on each side to provide shade and perching as well as a few smaller trees that will eventually provide additional perching. The birds have also broken branches off of the trees for use as nesting material. One nest platform on each side allows the birds to choose where to build their nest. There is also rockwork on the north side for this purpose. There is a narrow pool about three feet deep on the north side of the exhibit. Perches



Harpy Eagle. ©Hung V. Do, 2011

were added to the pool by the keepers to allow the birds easier access to the water. A small shift pen is located on each side along with a keeper service area.

COSTS

USD 1,000,000. The total cost for Amazon & Beyond was 42,000,000 USD.

OPENING DATE

7 December 2008

DESIGN

Beginning:

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

CONSTRUCTION

Beginning: 1 August 2006

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

PLANTS

The exhibit contains plants that are native to Central and South America. The plants provide perching for these large birds, shade and shelter from rain, as well as nesting material.

SIZE

Amazon & Beyond is approximately 117359 m². The Harpy Eagle Encounter is 356 m².



Perspective View. ©Hung V. Do, 2011



Rockwork © Hung V. Do, 2011



Kiosk. ©Hung V. Do, 2011

The aviary is 37.5 by 9.5 meters, the visitor area 8 x 5.5 meters, the keeper spaces 7 by 8 and 2.5 by 2.5 meters. Space allocation in square meters:

use	total exhibit
animals	356
visitors	44
others	62
total	462

FEATURES DEDICATED TO ANIMALS

Two small holding pens, one on each side of the exhibit, are used mainly for feeding the eagles and conditioning them to be comfortable being closed in the pens. This would allow to catch them easily, weigh, or just keep them away from keepers during exhibit maintenance. There are two nest platforms about 5 meters high with a wooden floor. After two years, the wood has begun to rot. Recycled composite lumber may be a better option than the wood. Each platform has an access door on the mesh for keepers to check the nest. The birds chose to nest on the ground on top of the rockwork where they successfully raised their first chick. The rockwork provides a high place for the birds to perch but it is not easy for keepers to access. Some sort of built in ladder or footholds in the rockwork would allow for the area to be cleaned with fewer disturbances to the birds.

FEATURES DEDICATED TO KEEPERS

The exhibit has a large service area on its north side and a small one on its south side. These areas are used mainly for tool storage.

FEATURES DEDICATED TO VISITORS

Located off of the south pond in the Amazonia area of the Amazon & Beyond Exhibit, the visitors exiting the main Flooded Forest gallery will cross a wooden bridge as they approach the Harpy Eagle Encounter. The exhibit encompasses a large footprint that is bisected by a trellis area. As they pass through, they can view the exhibit from either side and from below. The eagles often fly above to traverse from either side of the exhibit. Visitors can catch a glimpse of them up close and in action as they freely soar above and often perch right on top of the trellis, offering an up-close encounter with the birds.

INTERPRETATION

The Harpy Eagle Encounter is considered one of "showcase" exhibits in the Amazon & Beyond Exhibit. With this exhibit, the zoo hopes to educate the visitor on not only the basic facts about the eagle, but also the importance of the conservation effort underway to protect these threatened birds. The design team wanted to go beyond signs and posters and chose a design incorporating the latest technologies. There are several interpretive signs and interactive kiosks that allow the visitor to read, touch and interact with the exhibit.

As the visitors approach the exhibit, they are confronted with the first group of kiosks. The first kiosk is one of the "Discovery Stations" showcasing the pellets that are regurgitated from these birds. The text explains the importance of these artifacts in studying the birds and how researchers use them in their conservation work.

The second group of kiosks display standard bio-facts on the animal species. All of the signage at the exhibit is printed on high pressure laminate (HPL) and mounted in powder coated aluminum frames.

Continuing on the path, the visitor will see a replica of a harpy eagle nest that they can interact with by climbing in. The hard rubber nest is made to resemble the look of the intertwined branches that the eagles use to construct their nests.

At the trellis area underpass, visitors are greeted by an array of interactive kiosks. First, an exterior 32" LCD monitor plays a short 3 minute movie about the conservation effort in Panama and how researchers find and climb to the nests in the wild to conduct their research. Nearby, there is a button activated kiosk that plays the different calls that these birds make. Visitors can press any of the three buttons to play the corresponding sound file. Next to this kiosk is a replica resin cast of harpy eagle talons to give the visitor a close look at how large these birds really are.

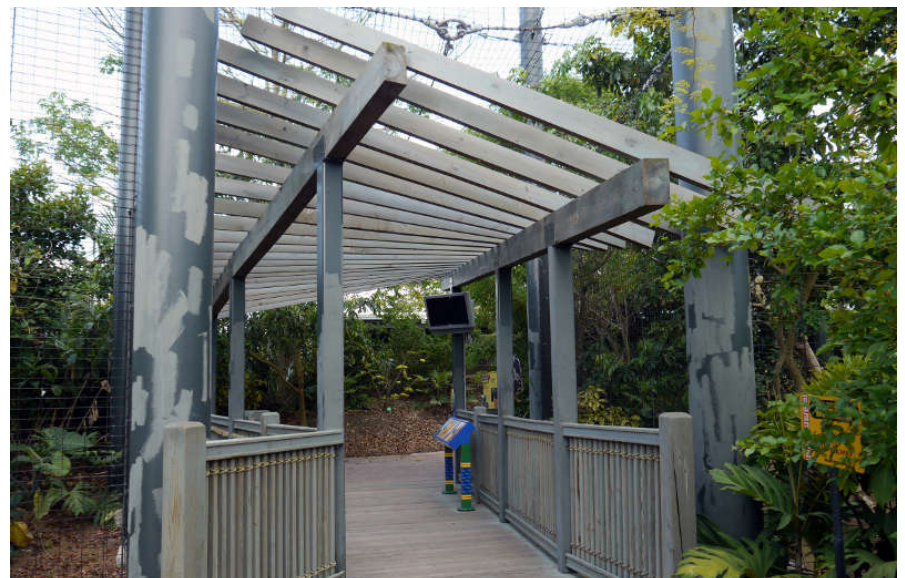
Exiting the trellis, there are two more "Discovery Stations" on either side of the walkway. The first kiosk is a coin operated "Slot Machine". Guest can donate coins to the conservation effort and in return attempt to line up the images on the slot machine wheels.



Nest ©Hung V. Do, 2011



Pool Area ©Hung V. Do, 2011



Perspective to Harpy Viewing Trellis. ©Hung V. Do, 2011



LCD. ©Hung V. Do, 2011

The three wheels on the slot machine will spin until the button is pressed to stop them individually. When the images line up, a random sound file will play as the "Pay Out".

Finally, the last kiosk "Discovery Station" is also button operated and plays a short sound file on the ongoing conservation effort conducted by Zoo Miami and our Zoo Ambassador, Ron Magill. The message can be played in both English and Spanish depending on which button is pressed. Upon this, there are daily Keeper Talks where visitors can engage with the staff caring for the eagles. Keepers will often bring artifacts to the talk; replica eggs, feathers, etc. Visitors can interact with the artifacts and ask the keeper any questions they may have.



Nesting Platform. ©Hung V. Do, 2011

Dry erase note tablets are also displayed on the exhibit giving visitors some additional information about the eagles.

MANAGEMENT

The eagles are cared for by a staff of five that is also responsible for five other exhibits. Two keepers are always present during routine cleaning and exhibit maintenance. Keepers also take care of the plants (trimming, watering, and mulching).

All interactive and electronics are serviced by the Zoo Exhibit Technician and Maintenance Staff. Routine maintenance is performed periodically to service the hardware in the kiosk as well as media or software updates associated with the exhibit.

RESEARCH

Zoo Miami has been providing funding for research on harpy eagles in the wild for the past several years and has also participated in several field expeditions.

CONSERVATION

In addition to participating in the Harpy Eagle Species Survival Plan (SSP), Zoo Miami has been involved with conservation efforts in Panama working with the Republic of Panama to build a state-of-the-art Harpy Eagle Centre at the Summit Zoo and Botanical Gardens just outside Panama City. The centre opened in 1998 and is used to promote conservation education programs in Panama.



ZooLex