AUDUBON ZOO’S JOURNEY TO A NEW HOME AND FUTURE FOR 1.2 SUMATRAN ORANGUTANS

Courtney Eparvier, Curator of Primates and Sea Lions
Roby Elsner, Assistant Curator of Primates
Audubon Zoo, New Orleans, LA
Berani

- Born in 1993 at Zoo Miami
- Transferred to Audubon Zoo in 2001
Feliz

- Born in 1988 at Gladys Porter Zoo
- Transferred to Audubon Zoo a few months following her birth
Menari

- Born in 2009 to Berani and Feliz at Audubon Zoo
Summary of relationship history between Berani and Feliz

- In 2001 about one week after arriving from quarantine, Berani was introduced to 0.3 adults, one of whom was Feliz.
- In 2007 one of the females died. Due to aggression, Feliz and the other female were separated, and both alternated time with Berani until the other female transferred to another zoo.
- In 2009 Menari was born to first-time mother Feliz. Although Feliz demonstrated attentive behaviors, Menari was pulled for hand-rearing due to a lack of nursing. Menari returned to her mother after ten months of hand-rearing.
- Feliz and Menari joined Berani around one month later.
- Several months after their introduction, Berani aggressed Feliz and took possession of Menari, refusing to return her. Eventually, Berani allowed Feliz and Menari to spend time together but he often was the primary caretaker. Over time, Berani’s aggression toward Feliz increased, as did his possessiveness of Menari.
- In 2012, the decision was made to separate Berani from Feliz and Menari.
Husbandry strategies that were subsequently implemented to improve social relationships

- Alternating routes in which each social unit of the orangutans shifted on and off exhibit.
- Providing each social unit of orangutans access to the entirety of the holding area.
- Increasing shifting opportunities, on a more randomized schedule.
- Implementing separation training three times a day to encourage prosocial behaviors and improved husbandry.
- Implementing additional training and enrichment opportunities.
The previous exhibit was walled with a moat in front, across which the visitors viewed the orangutans.
The new exhibit is a modification of the zoo’s previous elephant yard and holding building. It provides about three times as much space to the orangutans as the previous facility.
Previous holding space
New holding space

EXHIBIT

HOLDING 1

HOLDING 2

HOLDING 3

HOLDING 4

SERVICE AREA

Orangutan shift door
Keeper access door
Full work ups on all of the orangutans were conducted, including a C/T scan on Berani, who had been showing signs of chronic respiratory disease.
They were brought to their new holding area to recover. In the days that followed, shifting and other husbandry procedures within the new holding space were developed.
The degree and frequency of prosocial interactions between Berani and Feliz in their new facility indicated it was time to advance from a howdy setup to an actual introduction.

***The videos that depict the howdy and introduction phases within the new facility, as presented at the workshop, have been provided as separate files.***
Notes regarding the introduction

- The intensity and frequency of Berani’s aggression toward Feliz increased as the introduction progressed.
- Oppositely, Berani was very gentle with Menari, who was defending her mother. Berani would push her aside when he aggressed Feliz. During bouts of rest, Berani and Menari engaged in play.
- Thirty minutes into the introduction, Berani bit off Feliz’s right thumb, and she sustained additional serious injuries to her right hand and right foot. The introduction was stopped.
- Feliz required medical intervention and an extended recovery period.
While Feliz recovered in the holding area, accompanied by Menari, Berani was introduced to his exhibit. Once Feliz recovered, she and Menari were introduced to the exhibit.

***The videos of the orangutans in their new exhibit, as presented at the workshop, have been provided as separate files.***
Berani stayed on exhibit for a week before deciding to shift back to the holding area. Feliz also stayed outside for days before returning to her indoor space. Menari complied with shifting whenever asked. Orangutan care staff continues to work with the orangutans on their shifting compliance.
Strong points of the exhibit include its height, with both its climbing structure and abundance of palm trees.
Both the orangutans and visitors enjoy the viewing opportunity at the exhibit windows, a feature absent from the previous enclosure.
The orangutans enjoy the exhibit’s plants, most of which are still planted in the ground.
Height is an important aspect of the holding area as well. Walls and a ceiling of mesh provide many opportunities to hang furnishings and provide additional enrichment, plus encourage brachiation.
Additional highlights of the new facility

- Water sources are embedded within the poles of the exhibit.
- Training chutes for training demonstrations to visitors are located at the exhibit’s windowed viewing areas.
- A shift door within the holding area permits direct crate access for unloading and loading procedures.
In watching the orangutans enter and exit the holding area, arboreal transfers would have been more effective to elicit natural behavior and increase the animals’ comfort level. But poles that ramp toward the doorways were installed to help with the process of shifting.
Additionally, a transfer chute within holding to create a runaroundspace would have facilitated more ease and flexibility in shifting the orangutans indoors.
More regarding items on the “Wish List”

- Arboreal feeders on the exhibit’s climbing structure would have elicited natural behaviors.
- An outdoor holding space would have provided additional space for the orangutans, especially useful when different social units alternate time on exhibit.
- Indoor viewing would have been beneficial as well (but many southern zoos in the United States have historically lacked indoor primate viewing areas).
- The exhibit and holding space cannot likely accommodate the housing of another species, such as gibbons, with the orangutans.
- Certainly, cost and space can be typical prohibitive aspects in the design process.
- For new or redesigned exhibits, it is important to have animal care and management staff involved in the design process from beginning to end.
- Some items on the “wish list” can potentially be retrofitted into the facility in the future.
To provide socialization for all of Audubon Zoo’s orangutans in the near future, it is hoped that fission-fusion management will allow Menari to spend time with both of her parents, switching between Berani and Feliz.
Acknowledgements

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