

**Edmonton Valley Zoo Assessment
September 15, 2024**

Overview for visit:

The focus of this visit was to provide an outside perspective and assessment of the female Asian elephant "Lucy". Areas of observation included all aspects of her daily care including appearance, movements, diet, body condition, space usage and training and compliance. Other topics discussed were facility modifications and exploring transitioning to a protected contact management system. All of these will be expanded upon throughout this document.

My portion of this assessment involved one full day of observations and discussion focusing solely on the husbandry and management of Lucy. Dr. Dennis Schmitt was also present on the same day as well as one additional day to focus on the medical side, as such, I will not discuss anything medical in my report as that is not my area of expertise.

Physical condition and mobility:

Lucy looks to be in good physical condition especially given her age. While she is within her target weight range, she is at the upper end. She looks good and does not look obese. The team will need to continue to work to make sure she stays within this weight range. The varying browse offered is great to see. The access to all the trees around the park enhances her browse variability and is a benefit to her overall health. Her skin looks very good. Her routine scrub baths from staff and access to varying soils and substrate to dust in contribute to her good skin condition. She did have a couple pressure sores, none of which were a concern and not uncommon for an elephant of her age.

She does have some stiffness in her rear legs, but it seems to loosen up and her gait improves the more she moves. For her age, she moves very well. Her freedom to wander and explore throughout the property is such an asset to both her mental stimulation as well as her mobility and flexibility. Having access to diverse terrain and substrate throughout the park allow her walks to be so much more advantageous than just being in the same area every day. The hills and topography help to stimulate her mentally and physically. This has without a doubt been a contributing factor to enhance her mobility.

Her feet for the most part were in good condition. She did have a couple areas that the staff was treating and giving extra attention to, but this is nothing out of the ordinary for an elephant of her age. The staff is able to treat and care for the feet through trained behaviors and Lucy readily participates in this care.

Lucy's teeth are concerning. Her stool output looks fairly normal both in appearance and quantity, which would indicate that she is masticating her food properly and they do not appear to be causing any discomfort. After looking at her teeth, I was amazed that there was no odor. The staff does a great job checking her mouth periodically throughout the day and clearing any stuck food or debris. As this set of teeth move out you may need to consider grinding or chopping her hay and browse.

Exhibit / Facility Design:

Indoor housing for Lucy was clean and in good condition but limiting in overall space to move around. The indoor holding space had many different enrichment options to help stimulate her while inside as

well as a sand stall with a large pile of sand to provide her extra comfort to lay down on. A pool large enough for her to completely submerge is lacking and would be a great benefit to her. The ability to fully submerge and take weight off her feet would be an improvement to Lucy's welfare. Lucy also has access to a separate indoor "dome" area which the staff allow her access to on a regular basis. This area has a natural substrate which allows her to dust and sand piles which she likes to lay on to rest. This area is a great resource for Lucy but does require staff supervision while she is in this space.

Lucy does have regular access to her outdoor yard, weather permitting. The outdoor space is large enough to allow her to move around and explore. There is natural substrate, sand piles, shade, and some grassy areas. This area combined with her indoor space is adequate when she has access to everything but limiting her to one or the other does not provide her with enough space or choice. The weather in Edmonton can result in days where Lucy does not get to go outside, and the limited indoor space is a concern on these days. I understand the zoo is working on barn and yard expansions and modifications. I commend the Edmonton Valley Zoo for having these discussions and making Lucy's housing a priority. The cost of making any modifications in a zoo can be expensive, but for elephants it is always an exorbitant amount. With Lucy's age and knowing the average life expectancy for elephants, I think this shows their commitment to Lucy's welfare as long as she resides in Edmonton. I am sure the zoo has already discussed this, but all modifications made for Lucy should also consider how they can work with whatever fills this space after Lucy passes. As noted, these renovations are expensive, and Lucy has already surpassed the median life expectancy for an elephant in human care so planning for life after Lucy would help to make sure the modifications and space can be repurposed for future use.

Training and Enrichment:

The staff works well with Lucy, and she is responsive to training. She was very calm and alert throughout my time with her and did not exhibit any signs of stereotypy. She has an excellent relationship with her caregivers. The team asked for various behaviors and Lucy had good compliance. They allow Lucy to move and respond at her own pace, they do not push her. When on walks the staff carry guides on their belts but they were never used while I was there. The walks outside her enclosure provide an amazing opportunity for Lucy to experience various sights, smells, and terrain and is definitely a unique experience that is rarely found today with elephants in zoos. This experience is an incredible enrichment opportunity as well as being a tremendous asset for her overall health and mobility. It was often referred to as exercise, but I hesitate to say she is being exercised, as her pace is very slow, her breathing was never elevated, and I would assume her heart rate was never elevated either. Regardless, the ability to walk her around the property is invaluable to her mental stimulation and increased movements benefiting her overall wellbeing. Her attitude and response while outside the enclosure was great. She remains calm and is very comfortable wandering about the grounds. She is responsive to the staff if she starts to explore something she shouldn't. Lucy no longer participates in animal talks and demonstrations, but guests may still get the opportunity to see her while she is exploring, and they really seem to enjoy these opportunities. Everyone does a great job directing and instructing guests where they can and cannot go when Lucy is on grounds.

Part of my visit was to share my thoughts on transitioning Lucy to a strictly protected contact form of management and there was a lengthy discussion regarding what this could look like. During this conversation as well as noted in the Elephant Management Protocol, it was stated that Lucy is already trained in protected contact so the transition would not be difficult or stressful on Lucy. If she already

understands and is compliant responding to cues from outside the barrier the transition would be rather seamless. Questions arose regarding what impact it would have on her and how her quality of life would change. In my opinion the biggest impact would be the lack of mental stimulation from being permitted to roam zoo grounds. As stated earlier I do not feel her time spent outside the enclosure is exercise but does have tremendous benefits. The current size of the yard and barn can no way provide her with a comparable experience and stimulation. If the zoo is determined to go this direction and renovations are imminent, it may be worth exploring the option to install a walking path for her around the park. Some sort of elephant corridor, that allows her to explore and still experience the different mental and physical stimulations while not sharing the same space with the staff. Protected contact is a very safe and effective way to train and manage elephants. The relationship that the staff has with Lucy would not change, it would just be from behind a barrier. I feel that 99% of everything we need to provide elephants the best life in human care can be achieved through protected contact. Unfortunately, the 1% we cannot do in protected contact is often the difference between life and death of the elephant. Some extensive and invasive medical care is very dependent on sharing space with an elephant. All of my experience with this is in relation to EEHV treatments which should not be much of a concern for Lucy, but I wanted to share this for consideration as you make the decision.

Summary:

Lucy seems to be very content and comfortable with her current routine and situation. The staff has a great relationship with her, and she trains well with them. The walks around property are extremely beneficial to her and would be something hard to replicate if you moved her to protected contact but feel that that is the biggest thing she would lose if you made that transition.

I think it would be a benefit to the staff as well as to Lucy if staff members attended the Elephant Managers Association (EMA) conferences and the AZA Principles of Elephant Management (PEM) course. Their involvement in the EMA or PEM would keep them current on best practices and allow them to network with elephant care professionals from around the world which would enhance the care they can provide Lucy.

To move or not to move? I understand the pressure to move Lucy to be with other elephants as it is very unnatural for elephants to live in solitary conditions. Lucy does not show any signs of stereotypy or stress from being alone. Her life is very enriched and active. If the sole purpose to move her is for companionship, I would question this. Could she survive a move? Probably. While she is geriatric, she is in good health, but a move for her would not be short as she would likely have to move into the United States which is a long crate ride across the country. Physically she could probably handle this. What impacts it would have on her mentally or psychologically is unknown. An elephant that has lived alone for well over a decade that is very comfortable in her situation and surrounding to now be put in a crate moved on a truck for a long distance, get unloaded in a new house, new surroundings, with new strange elephants, being trained exclusively in protected contact and eventually losing the staff that she has worked with and known for the majority of her life in Edmonton does not seem like a positive welfare change for Lucy. If you decide to relocate and she experiences everything I just stated and works out, it will make a heartwarming story, but at what cost. An elephant in human care that lives to be 60 is an anomaly, 47 is the median. How many years does Lucy have? Is the stress of a move and introduction to new elephants acceptable for a few years of companionship? What if you go through all this and it doesn't work? Now Lucy is in a new strange environment, with strange staff and there is no turning back.

I think sometimes we make these decisions because we “think” it is what is best, because it is what we want and what we have read and know about the nature of wild animals. Animals in zoos are different. We try to provide a natural environment and social composition for them, but we cannot always do that, and the resilience of animals shows us how so many adapt and thrive in what are sometimes unnatural conditions. I don’t want to set this as a goal, but for Lucy, she has adapted and is thriving in her current situation. I think it would be a mistake to move her. The team performs monthly welfare / quality of life assessments on Lucy to help them identify deficiencies and make improvements. The scores seem accurate and do reflect a positive welfare change over the past 7 months.

The Edmonton Valley Zoo is lucky to have such a dedicated, hardworking team caring for Lucy. Safety and welfare of Lucy is their number one concern, and they achieve this very well. I appreciate the opportunity to work with Edmonton Valley Zoo and the dedicated elephant care team. I know that it is not always easy to let a stranger into your barn and critique you. Everyone at the zoo was very friendly and open to discussion.

If there are any concerns or questions, please give me a call at your earliest convenience.

A handwritten signature in black ink, appearing to read 'Daryl Hoffman', with a long horizontal flourish extending to the right.

Daryl Hoffman