



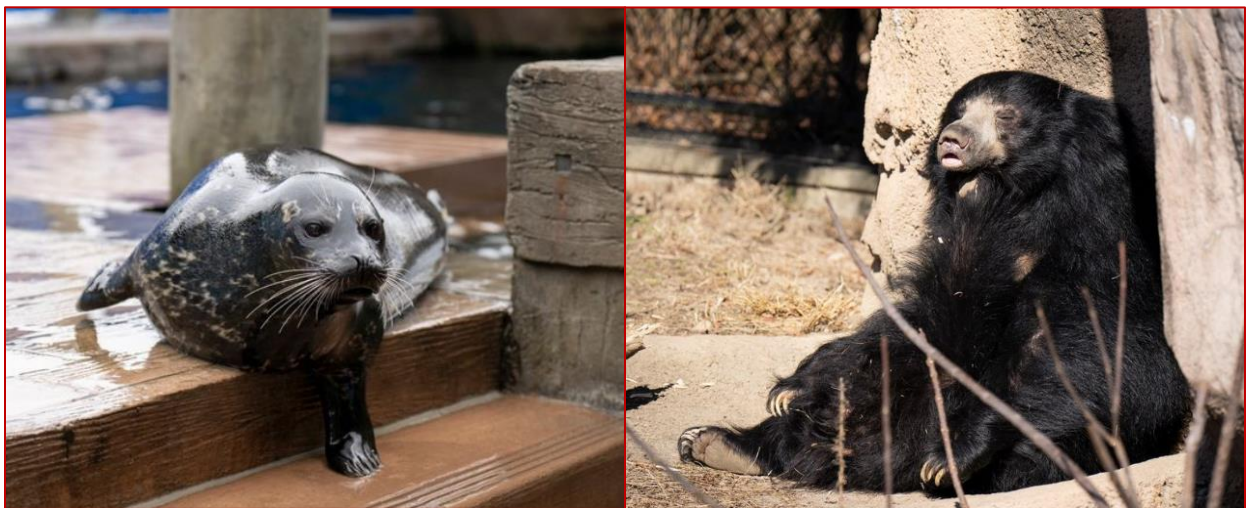
Animal Wellbeing Newsletter

February 2025

The purpose of this document is to review the Columbus Zoo and Aquarium's ongoing animal wellbeing program, highlight the activity of various animal wellbeing ventures around the zoo, and provide opportunities for continuing education through discussion of animal welfare scientific literature.

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Mission

The Columbus Zoo and Aquarium's (CZA) wellbeing mission is to ensure best wellbeing of all animals in our care.

Vision

CZA's wellbeing vision is to be a recognized leader in zoo animal wellbeing.



Definition

CZA defines animal wellbeing as the state of being comfortable, healthy, and happy.

Approach

Regular wellbeing assessments, innovative enrichment, and both staff as well as animal training are used to proactively ensure all resident animals will thrive in their environments at CZA.

The 2025 Animal Wellbeing Education Series

In previous years, we offered a brown bag lunch and learn series focused on animal wellbeing. This year, we are rebranding and expanding your access to animal wellbeing information!

Wellbeing Webinar Watch

Join Zach England and other coworkers as we watch recorded webinars from esteemed animal welfare scientists. These meetings will not be recorded but will be offered on two separate days in order to accommodate your schedule!

“The Five Domains Model”

Dr. Ngaio Beausoleil
Jan. 13th & 15th @ 1pm in Lakeside

“Welfare: Threat or Opportunity?”

Dr. Jake Veasey
Mar. 14th & 17th @ 1pm in Lakeside

“Deconstructing Choice and Control”

Dr. Marieke Gartner
May 14th @ 1pm in Water’s Edge
May 16th @ 1pm in Lakeside

“Modern Zoo Animal Feeding”

Dr. Marcus Clauss
Jul. 14th & 16th @ 1pm in Lakeside

“Implementing Goal-Based Enrichment”

Elly Neuman
Sept. 12th and 15th @ 1pm in Lakeside

“Training as Enrichment”

Dr. Eduardo Fernandez
Nov. 12th @ 1pm in Africa Event Space
Nov. 14th @ 1pm in Lakeside

Live Wellbeing Presentations

Prefer the classic live talks? Don’t worry! We will again offer six live presentations, featuring Dr. Katie Seeley and Zach England, as well as a few committee presentations!

“What is Animal Wellbeing”

Dr. Katie Seeley & Zach England
Feb. 27th @ 1pm in Lakeside

“Deep Dive into Wellbeing Assessment”

Animal Wellbeing Zookeeper Committee
Apr. 27th @ 1pm in Lakeside

“Animal Wellbeing & Evening Events”

Zach England
Jun. 23rd @ 1pm in Lakeside

“Conducting Behavioral Observations”

Zach England
Aug. 19th @ 1pm in Lakeside

“Animal Wellbeing Training Projects”

Speakers TBD
Oct. 13th @ 1pm in Lakeside

“Focusing on Focal Assessments”

Dr. Katie Seeley
Dec. 18th @ 1pm in Lakeside

AWES – Paraphrasing Previous Presentations!

*Weren't able to attend the January or February AWES presentations?
No worries - Find the highlights below! Additionally, a recording of the
February presentation will be available on the O-drive soon.*

“The Five Domains Model: History, Value, & Updates”

By Dr. Ngaio Beausoleil, 2021; Webinar Watch's on 1/13/25 and 1/15/25

Link to original webinar recording: <https://www.youtube.com/watch?v=t6v8A1l6zT4>

Dr. Beausoleil's Clarification

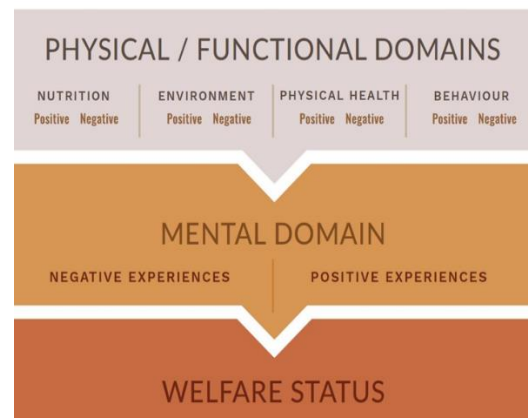
Domain 5 **NOT** separate from the other 4 domains

Incorrect:

Domains 1 - 4 consider “physical” wellbeing
Domain 5 considers “psychological” wellbeing

Correct:

Domain 5 = interpretation of evidence in Domains 1 - 4. In other words, Nutrition, Health, Environment, & Behavior give rise Mental States



In 2020, the Five Domains Model was updated, now including Human-Animal Interactions (HAI) into Domain 4 (Behavior). Dr. Beausoleil provided some examples to consider:

Negative Examples

- Person near animal with little prior human experience (*Wild caught, young animal, captured pests*)
- Person whose presence/behavior adds to existing threat (*Unskilled keeper/vet near sick animal or animal with young*)
- Person whose actions are directly unpleasant (*Unskilled trainer/handler, vet inflicting pain, visitors*)
- Person whose actions are remembered as aversive (*Unskilled trainer/handler, vet inflicting pain, visitors*)
- Bonded person whose actions cause unintended harm (*Absentee carer, failing to make end of life decision*)

Positive Examples

- Preferred person who provides company/safety (*Familiar keepers, trainers, vets, volunteers*)
- Person who provides preferred resources (*Familiar keepers, trainers, non-threatening visitors*)
- Person participating/facilitating enjoyable activities (*Skilled trainers, play, novel enrichment/environment*)
- Person whose presence reduces threat (*Familiar keeper present with visitors or veterinary staff*)
- Person acting to end deprivation, harm, or inhibition (*Treating sickness, freeing animal from confinement*)

“What is Wellbeing? And What is the Columbus Zoo Doing About It?”

By Zach England and Dr. Katie Seeley, 2/27/2025

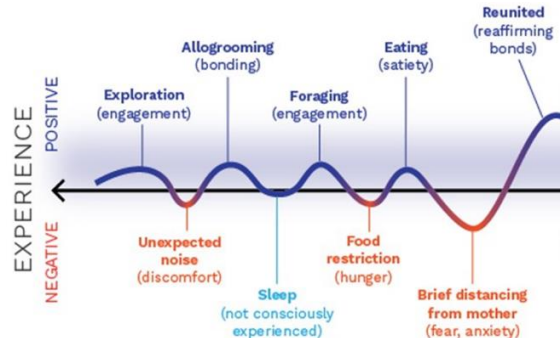
Presentation recording will be on the O-Drive soon!

As this talk was targeted at non-Animal Care Staff, Zach and Dr. Katie covered the basics of Animal Wellbeing, including the definition, a little introduction to animal welfare science, and some frequently asked questions.

Wellbeing:

“The state of being comfortable, healthy, and happy”

Oxford English Dictionary



Zach and Dr. Katie also reviewed a few key pieces of the Columbus Zoo & Aquarium’s Animal Wellbeing Program, namely our different Assessment Tools and Wellbeing Committees, as well as our New Initiatives.

Animal Wellbeing Assessment Tools (AT)

General Wellbeing AT

Focal AT

Life Impacting AT

Evening Event AT



Animal Wellbeing Committee (AWC)

- Wellbeing Oversight Sub-Committee
- Zookeeper Sub-Committee
- Science Sub-Committee
- Education Sub-Committee
- Enrichment Sub-Committee
- Training Sub-Committee

New Initiatives	Animal Wellbeing Education Series – <i>An expanded and revitalized approach to the traditional brown bag lunch presentation</i>
	Scanimals – <i>A docent-driven animal observation program</i>
	Set Up for Success – <i>A proactive exercise aimed to positively impact wellbeing starting the day an animal steps, slithers, swims, or soars onto Zoo grounds</i>
	PowerBI – <i>Utilizing technology to improve our Animal Wellbeing Program</i>

Animal Wellbeing Region Goals for 2025

Each year, the Animal Wellbeing Zookeeper Committee representatives work with their individual regions to set wellbeing goals. Find your region's goals and the other region's goals below!

Asia Quest - Continue enhancements in bat habitat: increase the space that the bats utilize, gain additional bats, possibly add another species to bat habitat. Additionally, evaluate the amount / quality of shade in animal yards and add shade where necessary.



Australia & The Islands - Create ways to increase the time animals spend using enrichment and create enrichment that is longer lasting throughout the day.

Congo - *Continuation of 2024 goal:* Previous modifications to okapi stalls have not significantly reduced Matoke's pacing. We have decided to move forward with fully enclosing his stalls with visual barriers and started a clicker training/communication plan. We will do observations to see if there is any impact on his pacing patterns.





Elephant - *Continuation of 2024 goal:* Elephant team made a lot of enhancements to the enrichment program in 2024. Still working on adding more and updating the enrichment calendar.

Heart of Africa - Inspired by the internal wellbeing workshop, we want to find a way to quantify the results from our assessments – whether that means working on more Focal assessments or using ‘2’s more often on the generic wellbeing assessments, we are not 100% sure. The team is up for the potential challenge of more assessments to achieve a quantifiable collection of data, so that we may in the end be able to graph some trends!



North America - Getting all animals for North America Trek moved safely and acclimated to new living spaces.

Shores Aquatic – Re-establish pelican weight and crate training.



Shores Terrestrial – Bird team will continue penguin blood draw training and work on anticipatory behavior for penguins during PM feeding times for 2025.

Wild Encounters Africa - Evaluate mixed-species wing indoor habitats for habitat additions or modifications to increase/promote species-appropriate behaviors (multispecies dig pit, etc.).





Wild Encounters AEV -
Use information from our wellbeing assessments to prioritize our training projects for 2025.

Wild Encounters Outreach -
Build upon this year's successes with formal observation studies; as well as training seasonal staff to assist with projects.



Wild Encounters Pinnipeds -
Training enrichment interaction with our animals. Additionally, work on addressing anticipatory behavior with animals prior to start of training sessions.

Science Summary

“Key Concepts for Enhancing Zoo Animal Welfare: Coping, Comfort, Choice, Control, Challenge, and Compassion” By Paul Rose & Jack Lewton, 2024

Link to full article: <https://doi.org/10.1080/10888705.2024.2440891>

Many of us are probably familiar with the title terms: coping, comfort, choice, control, challenge, and agency. However, the aim of this paper is to take the theoretical definitions of these terms and create practical applications through measurable identifiers.

Term	Definition	Example of Measurable Identifiers
Coping	Animal is performing adaptive behaviors and maintaining homeostasis	<ol style="list-style-type: none"> 1. Performance of abnormal behaviors. 2. Indicators of lethargy, apathy, and perceived boredom. 3. Performance of negative self-directed and/or displacement activities. 4. Measures to contextualize any biased or uneven enclosure usage. 5. Over-use of resources or sudden change in social dynamic.
Comfort	Animal is experiencing positive psychological, physical, and behavioral states as well as a physically comfortable environment	<ol style="list-style-type: none"> 1. Quantifying time spent on biologically relevant behavior patterns (for example, the performance of time-activity budgets that demonstrate completion of highly motivated behavior and therefore the animal can be said as being satiated). 2. Performance of “luxury” activities (e.g., play, if relevant to the species in question). 3. Categorization of species-appropriate responses to husbandry.
Choice and Control	Animal is demonstrating independent and diverse biologically relevant behaviors that lead to feelings of autonomy	<ol style="list-style-type: none"> 1. Defining positive diversity of biologically relevant behaviors. 2. Measuring flexibility of behavior patterns. 3. Scoring the choices an individual has (i.e., different zones or access to enrichment devices) within their environment. 4. Identifying preferences for aspects of husbandry or management regime (i.e., favored resting areas or access to housing).

Choice and Control <i>(Continued)</i>		5. Analysis of individual social networks and patterning of associations to contextualize social relationships
Challenge	Animal is experiencing positive challenge that facilitates behavioral resilience and promotes ecologically relevant behavioral diversity	<ol style="list-style-type: none"> 1. Beneficial complexity of enrichment (i.e., defining when complex becomes too problematic). 2. Problem solving abilities or latent effect of enrichment on behavior (i.e., how long the positive influence of the enrichment lasts once it has been provided to the animal).
Compassion <i>(For Animals)</i>	Relevant husbandry sympathetic to a species' needs, provided by trained animal care staff that feel supported and values their work	<ol style="list-style-type: none"> 1. Integration of best practice guidelines (where relevant) into a zoo's management protocols for a species. 2. Staff knowledge and understanding of current, accepted best practice husbandry approaches for species they are responsible for.
Compassion <i>(For Humans)</i>	Adequate training, provision of a suitable and well-resourced work environment, and opportunities for development to ensure animal management staff can provide appropriate husbandry to uphold good welfare	<ol style="list-style-type: none"> 1. Determining how well animal care staff feel equipped to deliver positive welfare and evidence-based husbandry. 2. Promoting feelings of value in animal care staff and obtaining feedback on a sense of value. 3. Measuring how much knowledge animal care staff have of the needs and requirements of the specific species within their responsibilities. 4. Evaluating how the job demands of animal care staff are balanced against the relevant tools available to resource how to complete their work. 5. Quantifying how staff feel valued/supported/resourced to ensure they can effectively deliver welfare-positive husbandry to the animals they are responsible for.

“The examples of measurable identifiers are not an exhaustive list, but reflect what could be practical, easy-to-implement measures of determining different influencers of animal welfare states. Consideration also needs to be given to individual animal differences (e.g., personality, past experiences, preferences) that will modify how each animal responds to what is considered optimum care for that species overall.”

An Otter Water Wonderland!

By Aleisha Stanley, Zookeeper, Australia & The Islands

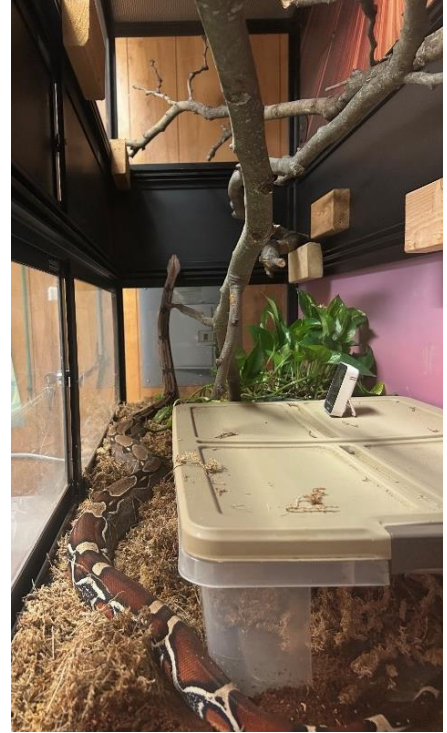
During the winter months, our Asian small-clawed otters don't have access to deep pools. These kinds of pool are really important, as they let otters dive and provide older otters the opportunity to get off their joints. This winter, we've made it a priority to give our otters access to a deep pool. In order to accomplish this in their winter housing, we've been setting up a really big pool in the keeper aisle and letting them swim in it (supervised) twice a week. Not only has it been a great social activity for our bachelor group, but it has also been a great relationship builder between our male/female pair and our keeper staff. We had never worked our male/female pair free contact until we started our otter pool parties! Additionally, our 16 year old male has really bad arthritis and mobility issues; his wellbeing usually declines drastically in the wintertime because he isn't able to get off of his joints at all. However, it seems giving him the opportunity to swim in deep pools has helped him a lot - we haven't seen as much of a decline in his wellbeing this winter!



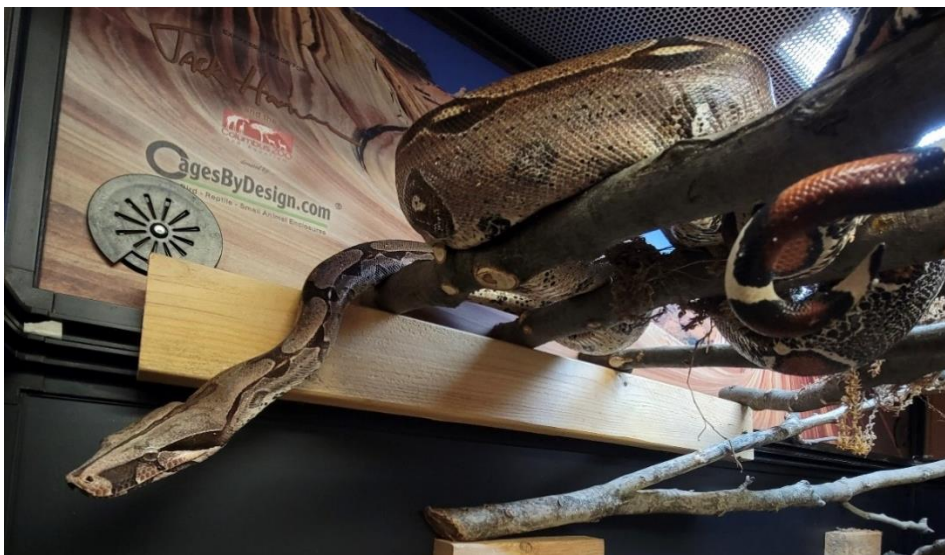
Slithering into a Better Space!

By James Gentzel, Animal Programs Specialist, Wild Encounters Outreach

Via discussions precipitated from conducted animal wellbeing assessments, Animal Outreach staff observed that Severus Snape (Red-tailed boa) was spending most of his day within his hide, did not frequently explore the entirety of his habitat, and overall displayed minimal locomotion. In order to encourage more exploration and locomotion, the staff discussed a variety of options. There were general monetary and space limitations to consider, thus staff retrofitted the current habitat by eliminating a dividing wall and merging two habitats together, effectively doubling available space. Next, a series of perches were installed to increase vertical climbing opportunities. These branches led to the very top of the habitat, where another form of respite was provided. Additionally, we were able to provide Severus with long(er) range views via the location of this hide. Live plants, increased orchid moss, and a mister system were also installed to burgeon humidity to a more desirable level.

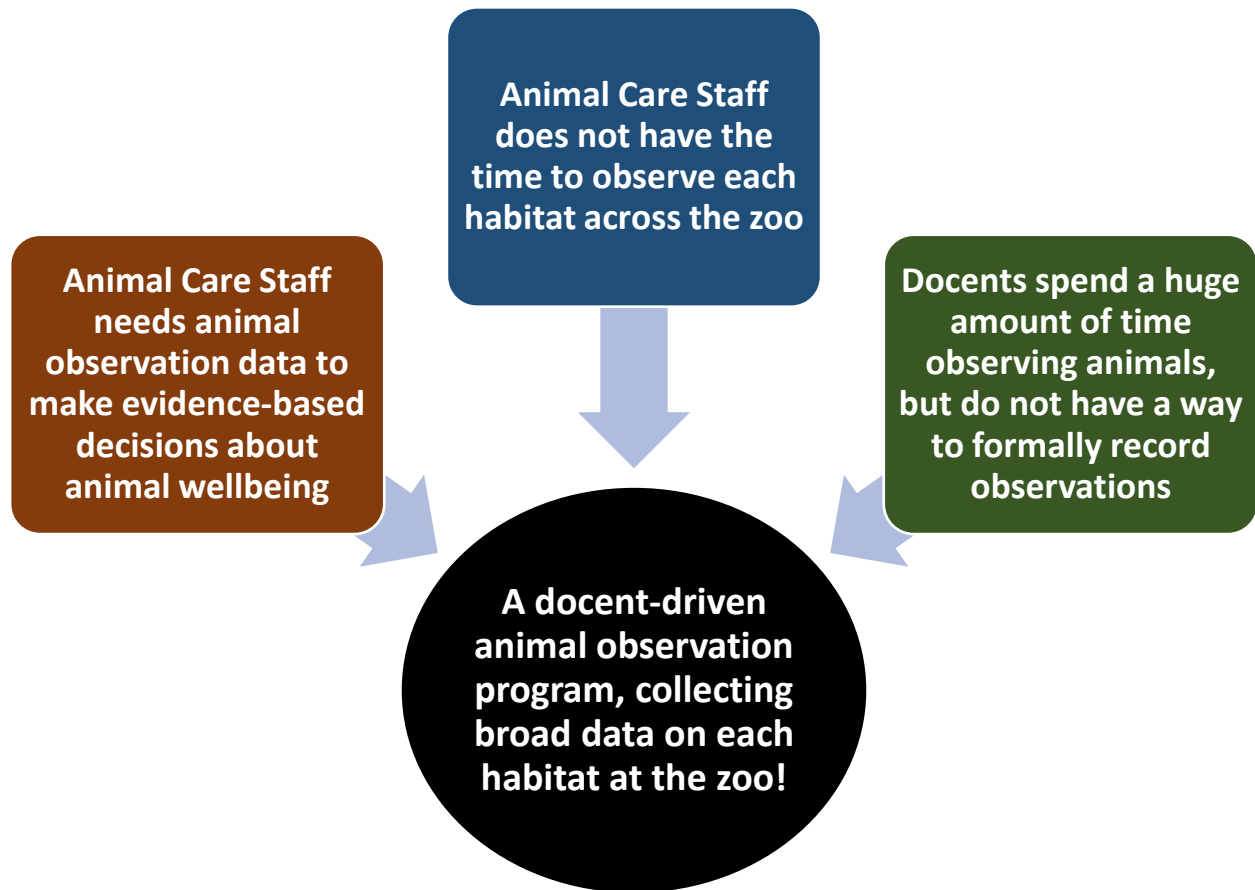


To further encourage locomotion - and foray into the realm of experiential enrichment - a novel feeding opportunity was implemented. Typically for feeding, Snape is moved from his habitat and is fed within a designated feeding space. Instead, prior to leaving for the day, staff created a blood trail within his habitat which led to his rat. Camera observations revealed that Snape promptly followed the trail and successfully found - and ate - the rat.



Overall, the habitat modifications have proven to be robustly successful and were accomplished with no added cost. Snape now explores the entirety of his habitat daily and overall exhibits increased species appropriate behaviors.

Scanimals – A New Initiative for Animal Wellbeing

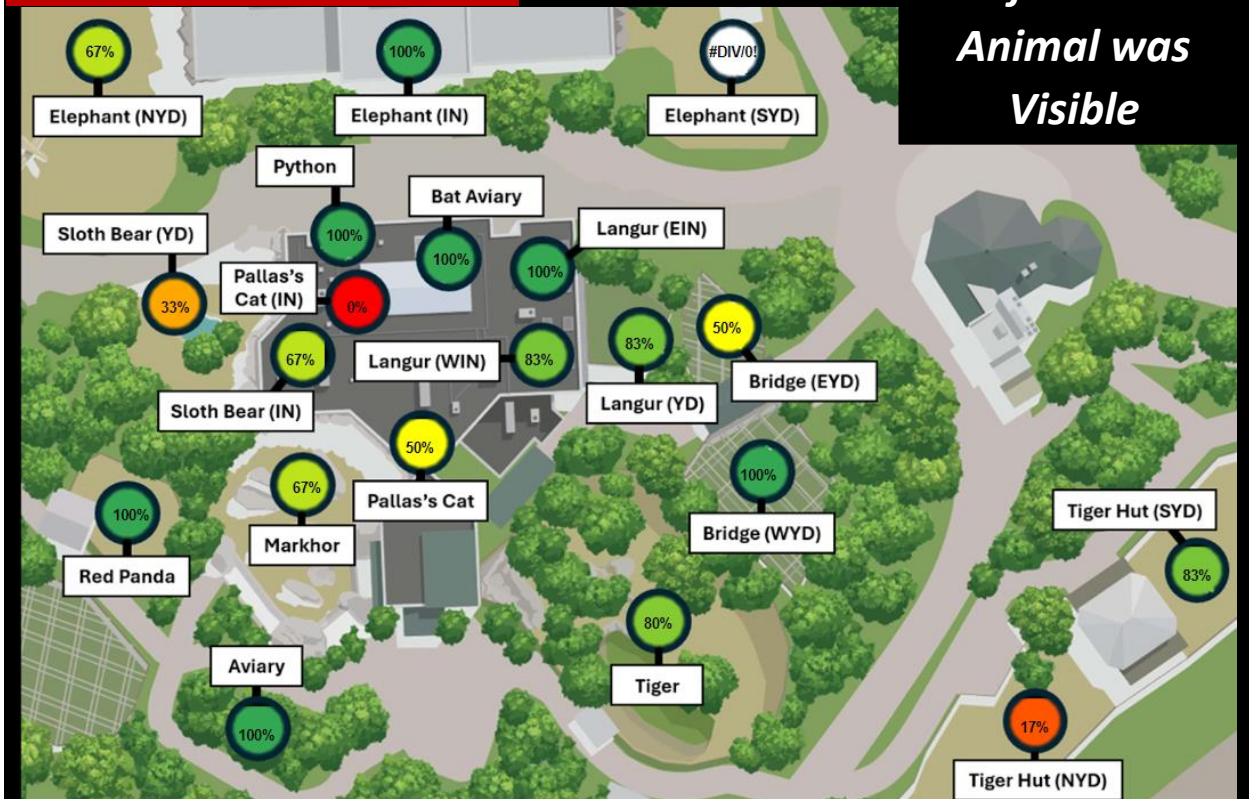


Adam Felts, Rebecca Koller, & Zach England, along with Rachel Griffiths & Ginger Earley, have been working to make this dream a reality! The Scanimals program will give us broad information on each public-facing habitat in the zoo; capturing data on things like “How often is an animal visible in this habitat?” and “What behaviors are we seeing in this habitat?” The data collected will also highlight where Animal Care Staff could complete more in-depth observations if, for example, abnormal behaviors for a specific habitat are frequently observed *or* if positive behaviors are rarely observed.

We have begun training docents to complete Scanimals observations in both Australia & The Islands and Asia Quest. As we begin opening shifts and iron out any kinks for those regions, we’ll work to get materials set up for the rest of the zoo. The goal is to provide each region with a few different results dashboards; check out the ones below from test data collected last year!

Asia Quest Test Data

% of Scans an Animal was Visible



Red Panda Test Data

General Data	Total Scans	Total Habitat Open's	Total Animal Visible's	How Often is The Habitat Open?	When Habitat is Open, How Often is An Animal Visible?	When An Animal is Visible, What is The Habitat Behavioral Diversity?	Count of Guest Number									
	6	6	6	100%	100%	25%	< 5	6 - 10	11 - 20	21 +						
What Behaviors Are Guests Seeing?	Resting	Locomoting	Eating/Drinking	Interacting w/ Environment	Interacting w/ Conspecifics	Interacting w/ Enrichment	Abnormal Repetitive Behavior	Behavioral Diversity	Count Of Animal Visible By Time Of Day							
	83%	50%	0%	17%	0%	0%	0%	25%	9a/10a	11a/12p/1p	2p/3p	4p/5p				
										2	2	2	0			
Behavior Data by Time of Day	Resting				Locomoting				Eating/Drinking				Interacting w/ Environment			
	9a/10a	11a/12p/1p	2p/3p	4p/5p	9a/10a	11a/12p/1p	2p/3p	4p/5p	9a/10a	11a/12p/1p	2p/3p	4p/5p	9a/10a	11a/12p/1p	2p/3p	4p/5p
	100%	50%	100%	#DIV/0!	50%	50%	50%	#DIV/0!	0%	0%	0%	#DIV/0!	0%	50%	0%	#DIV/0!
	Interacting w/ Conspecifics				Interacting w/ Enrichment				Abnormal Repetitive Behavior				Behavioral Diversity			
0%				0%				0%				25%				
Behavior Data by Season	Resting				Locomoting				Eating/Drinking				Interacting w/ Environment			
	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring
	83%	#DIV/0!	#DIV/0!	#DIV/0!	50%	#DIV/0!	#DIV/0!	#DIV/0!	0%	#DIV/0!	#DIV/0!	#DIV/0!	17%	#DIV/0!	#DIV/0!	#DIV/0!
	Interacting w/ Conspecifics				Interacting w/ Enrichment				Abnormal Repetitive Behavior				Behavioral Diversity			
0%				0%				0%				25%				

General Updates and Conclusion

General Updates

- The Animal Welfare Committee will have its first quarterly meeting for the year on March 12th. Each subgroup will review the progress they have made during the first few months of 2025.
 - **Subgroup Highlight** – The Education Committee!
 - Danielle Ross has been doing incredible work, organizing and preparing the Education Committee to tackle some really important topics in 2025:
 - Update the staff learning module on Paychex (*Lead by Megan Saylor*)
 - Roll out the Animal Wellbeing Education Series (*Lead by Zach England*)
 - Assess how visitors perceive animal wellbeing (*Lead by Danielle Ross*)
 - Continue to incorporate wellbeing training into seasonal and volunteer training (*Lead by LaRue Cooper*)

Conclusion

Thank you for reading the final issue of the 2024 CZA Animal Wellbeing Newsletter! As always, please contact adam.felts@columbuszoo.org or zach.england@columbuszoo.org with questions, comments, or ideas regarding the newsletters or anything animal wellbeing!

