

Animal Husbandry Project Toolkit

2025



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INTRODUCTION

Woodland Park Zoo's Advancing Empathy (AE) Initiative was launched in 2019 to expand the use of the empathy practices and build community and collaboration with other Association of Zoos and Aquarium (AZA)-accredited zoos and aquariums. As part of its AE Initiative, Woodland Park Zoo was privately funded to develop a grant program that builds capacity to foster empathy for wildlife in accredited zoos and aquariums across Alaska, Idaho, Minnesota, Montana, North Dakota, Washington and Wisconsin.

The AE Grant Program supports organizational efforts to plan, build, and/or expand practices and programs that foster empathy for animals and wildlife. Through grant support, recipients are developing the resources and expertise they need to increase the long-term impact of empathy practices and programs at their zoo or aquarium and have a lasting influence on their organization and their peers.

To date, the program has granted \$8 million to support 80 grant projects that have developed, implemented, and evaluated initiatives ranging from formal programs for children to infusing empathy into biofact usage, exhibit design, and interpretive plans. Grantees have also benefited from the program's collaborative nature and cross-institution knowledge sharing, which happens during grant periods, across grant rounds, and in professional forums such as peer-reviewed journals and panels at AZA conferences.

AE grant recipients also share best practices, lessons learned and resources developed through their grants with the Advancing Conservation through Empathy for Wildlife (ACE for Wildlife™) Network. The Network is a global learning community that creates and shares effective practices to foster empathy for animals and people. This amplification allows grant outcomes to support collaboration among all zoos and aquariums working to inspire conservation action.

To make the 142 resources developed by all 61 projects more accessible, the AE team has created this series of toolkits based on the 10 underlying themes that cut across grant projects including:



Animal Ambassadors



*Animal Care Play Spaces
& Young Learners*



Animal Husbandry



Construction



*Diversity, Equity,
Accessibility & Inclusion*



Long Term Planning



On-Site Interpretation



Programs & Partnerships

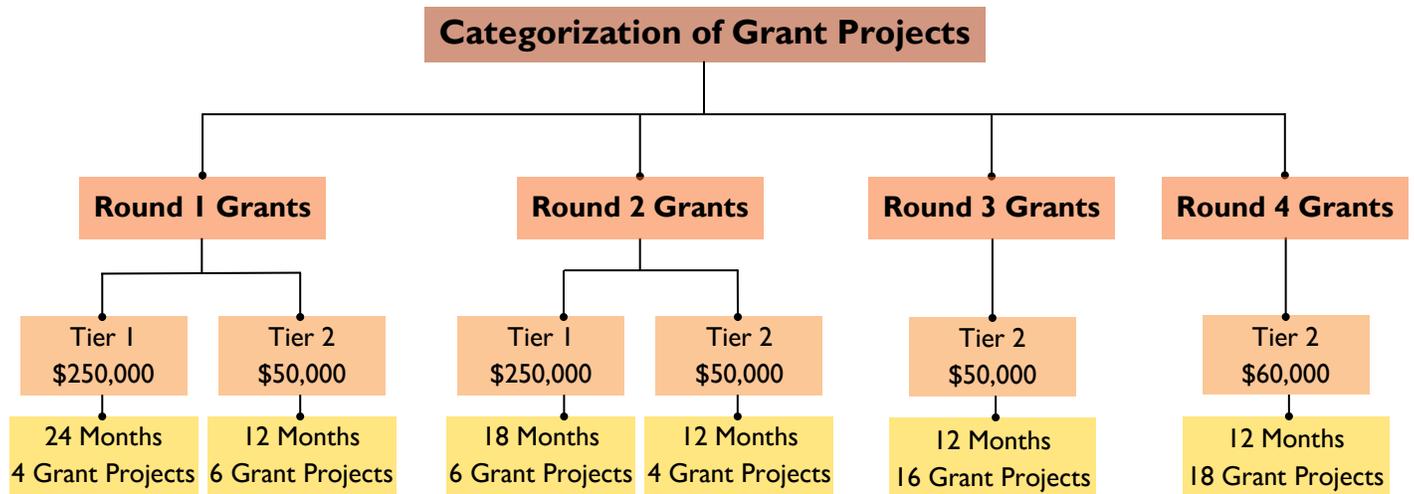


Signage



Staff and Volunteers

The toolkits include AE grants funded in the 2019 grant pilot program and AE Grants Rounds One through Four. As subsequent grant rounds conclude, additional resources will be added. In Rounds 1 and 2 (awarded in 2021), there were two funding tiers: Tier 1, up to \$250,000 and up to 24 months (in Round 1) or 18 months (in Round 2); and Tier 2, up to \$50,000 and up to 12 months. Round 3 only featured Tier 2 grants due to the timeline of the overarching AE grant that had been set to end in December 2023. Due to an AE grant extension, Round 4 Tier 2 grants were offered on a 12-month timeline as well, with an increase of up to \$60,000 to account for rising costs.



Categorization of Advancing Empathy Grant Program

For insights into the collective impacts of funded projects and key takeaways from the grant program to date, see our culminating grant reports in the [Resource Library](#). These reports highlight lessons learned, emerging themes, and recommendations as the granting program continues to evolve.

EXECUTIVE SUMMARY

This toolkit features five grant-funded projects that integrated animal enrichment, wellbeing-focused design and animal husbandry with empathy-driven visitor engagement. Together, these projects demonstrate how animal care practices and routines, habitat enhancements, and staff training can be leveraged to meaningfully deepen guests’ understanding of and connection to wildlife. Project teams explored new ways to involve guests in animal behavior observation, made behind-the-scenes encounters and moments for care or training more visible. These projects prioritized animal wellbeing, designed or created spaces that support animal agency and control, and shifted organizational practices to highlight the role of animal care staff in fostering empathy for wildlife.

Projects Included



New Grizzly Bear Den



Fostering Empathy Through Enriched Experiences



Fostering Empathy Through Enriched Experiences



Creating a Space for Empathy



Assuring Welfare through Ethograms



Objectives and Strategies

The projects in this group focused on enhancing or expanding habitat capacity for animals, enhancing animal enrichment, improving guest perceptions, involving guests in animal behavior assessments through the use of ethograms, and training zoo staff on empathy-focused practices.

Key Achievements

Across these projects, significant achievements were made in expanding habitat capacity, enhancing animal enrichment, and improving guest engagement and perceptions. These grants encouraged more active and engaged animal behaviors across species and led to guests reporting more positive perceptions and a greater intent to take caring actions after witnessing these enriched behaviors.

Outputs and Deliverables

The projects collectively produced notable outputs, including the construction of animal enrichment spaces and habitats that increase the capacity to house animals - including at risk animals, the development of enriched experiences for multiple animal species and related empathy-focused keeper chats, guest-focused signage based feedback-systems to inform animal care teams about animal behavior through ethograms, and additional training of zoo staff in empathy and enrichment practices.

Challenges

The projects encountered several common challenges, including limited staff capacity and weather delays that caused shifts in construction timelines. The ongoing COVID-19 pandemic caused delays in program implementation and resulted in less robust data collection than anticipated. Several projects noted difficulty finding the right balance between entertainment and education in programs, and in aligning evaluation goals with project objectives.

Conclusion

The funded projects successfully advanced the goals of improving animal wellbeing, enhancing guest engagement, and promoting empathy through innovative enrichment and educational programs. Despite facing challenges, the projects achieved meaningful outcomes that will positively impact animal wellbeing and visitor education in the long term.

PROJECTS

New Grizzly Bear Den

Grizzly and Wolf Discovery Center, April 2022 – September 2023 (Round 2, Tier 1)

Project Summary: This project's primary objective was to expand the holding capacity for grizzly bears that could no longer remain in the wild due to human-wildlife conflicts. At the inception of this project, the facility had space for eight grizzly bears and had reached full capacity. Funding was directed toward the construction of a second bear den, expanding Grizzly & Wolf Discovery Center's (GWDC) ability to accommodate an additional eight grizzly bears in need of sanctuary. The bears at the facility serve as ambassadors, assisting education staff in delivering empathy-based interpretation programs. These programs aim to help visitors understand how to recreate responsibly in bear country, reducing human-bear conflicts, and preventing the euthanization of wild bears.

Achieved Outcomes: GWDC completed the enclosure of a new bear den; and continued to develop collaboration with the Montana Fish and Wildlife Parks to help save the lives of bears. This project also developed a qualitative research project to measure program, interpretation, and messaging feedback of their organization. Once completed, the new bear den will enable GWDC to increase their capacity to protect bears and also provide them the opportunity to expand their platform for empathy-based interpretation.

Click [here](#) to view the webinar and resources related to this project.

Success Story: What was the highlight of your visit to the Center? Why?

"I loved watching Sam sift through all the logs to find food. He's just so so incredible, I literally stopped in my tracks with my jaw dropped, when I first saw him. I still have goosebumps from the experience."



View of the raceway from inside the Bear Den.

Fostering Empathy Through Enriched Experiences

Red River Zoo, September 2022 – September 2023 (Round 3, Tier 2)

Project Summary: This project at Red River Zoo aimed to enhance animal wellbeing and visitor engagement by implementing enrichment strategies that encouraged empathy for animals. The animal care team participated in workshops facilitated by the AWARE (Animal Welfare Assessment, Research & Education) Institute to improve animal behavior assessment, select species for enrichment, and create empathy-driven educational content. The species selected for creating enriched experiences were bison, raven/kookaburra and lynx.

Achieved Outcomes: Enriched experiences led to increased animal engagement, with notable improvements in the animals' behavioral profiles. Visitors reported enhanced perceptions of animal care and a stronger connection to the animals. The animals under care demonstrated more active behaviors during enriched experiences, including bison exhibiting increased locomotion. Visitors expressed higher levels of connection to the animals, along with greater awareness of conservation issues and a desire to take action. The project also instigated a cultural shift in the organization, reinforcing the importance of enrichment and empathy in future exhibits and programs. Going forward, the zoo plans to expand the initiative, continuing staff training and incorporating new technologies to enhance visitor engagement.

Click [here](#) to view the webinar and resources related to this project.

Success Story: *"A highlight of this project was watching the enrichment projects go from a concept/idea to being put into practice for our animals; seeing their reactions to something new and stimulating." - Zookeeper*



Lynx during an enrichment experience.

Fostering Empathy Through Enriched Experiences

Roosevelt Park Zoo, September 2022 – September 2023 (Round 3, Tier 2)

Project Summary: Roosevelt Park Zoo, in collaboration with the AWARE Institute (Animal Welfare Assessment, Research & Education), conducted a hybrid research and staff development project aimed at enhancing the zoo's efforts in fostering empathy for wildlife. The project focused on creating enriched experiences for four specific species through behavioral opportunities, with the aim of inspiring conservation action among zoo guests. Enriched experiences, as opposed to traditional enrichment, centered on the desired behavioral outcomes for animals while also showcasing these behaviors to engage guests.

To achieve this, animal care staff participated in a series of three interactive on-site workshops focusing on empathy, outcome-based husbandry, and keeper chat presentations. These workshops aimed to teach the staff how to design and implement enriched experiences and develop empathy-driven educational content. The species selected for the project were otters, tigers, hornbills, and okapi. During the workshops, the teams designed enriched experiences to target specific behaviors like hunting, foraging, and problem-solving for the featured species.

Achieved Outcomes: Behaviorally, there was a significant increase in active, natural behaviors for some species, particularly the foraging behavior in the okapi. Other species showed trends toward more active behaviors like feeding, foraging, and locomotion, though results were not always statistically significant. Guests who attended keeper talks where enriched experiences were implemented showed a significant increase in empathy-related responses, including greater awareness of actions they could take to help each species in the wild and a higher likelihood to take conservation actions. Staff members gained valuable insights into developing enriched experiences and became more passionate about behavioral enrichment.

Click [here](#) to view the webinar and resources related to this project.



Keeper chat during a tiger enrichment.

Success Story: *“As a result of this process, the zoo staff has developed a new passion for the behavioral enrichment they provide to the animals in their care. While most days enrichment will remain the simpler types of enrichment such as scents or treat puzzle boxes, due to time constraints involved in creating the enhanced enrichment options. However, staff is now emboldened to develop those enhanced enrichment experiences for the animals in their care and supported by the management to expand those practices to all species within their areas. To maintain this momentum, the staff will meet monthly to focus discussions around enrichment and to assist one another with ideas and problem solving for developing enhanced enrichment for the more difficult animals to engage.”*

Creating a Space for Empathy

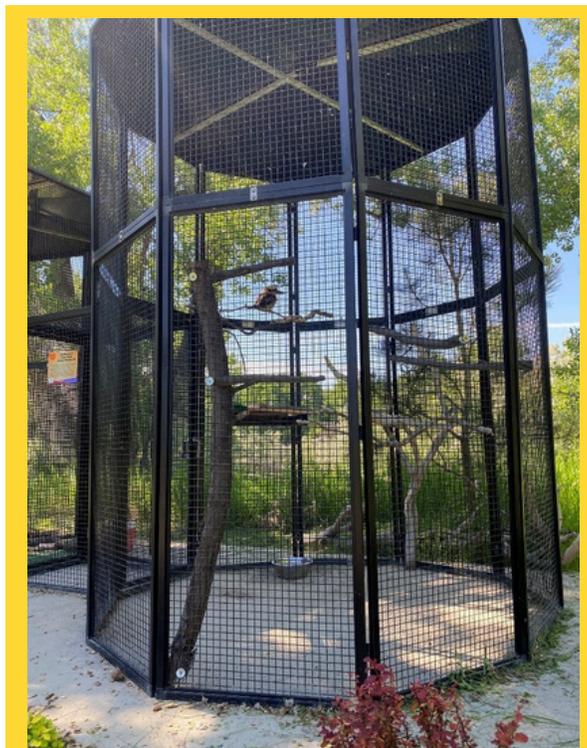
ZooMontana, September 2022 – September 2023 (Round 3, Tier 2)

Project Summary: This project created safe outdoor environments for ambassador animal residents to enjoy some fresh air and stimulation. This provided ZooMontana's animal residents with an outdoor facility where guests could better observe relationships with staff; as well as training, education, and enrichment sessions. In addition, they began permitting and design of a training/exercise space for enrichment staff to facilitate their outdoor work. Additionally, this project included the installation of shade sails for the amphitheater, which created a more comfortable environment the public during presentations, increasing access to educational programming on the importance of preserving and conserving the natural habitats of all animals.

Achieved Outcomes: Several outdoor Animal Playgrounds for Zoo Montana's ambassador animals were constructed that allow them to maximize welfare of the indoor animals (birds, reptiles, and mammals). This project has allowed for more empathy-infused education programming in the summer. In addition, a new training enrichment yard was also designed to give guests an opportunity to see animal care staff give enrichment and training to animals.

Click [here](#) to view the webinar and resources associated with this project

Success Story: *"I think the biggest success story is sort of a culmination of all the work has allowed us to do. When I was walking across our grounds and heard a little girl yell, Hey...Sydney's outside" I realized that the little girl not only knew who Sydney was but she was at first concerned Sydney was not in her normal spot and then elated to see she was outside in a new environment (and knew it was her by her call)." -ZooMontana staff*



Sydney is enjoying one of the new outdoor spaces.

Assuring Welfare through Ethograms

Racine Zoo, January 2024 – December 2024 (Round 4, Tier 2)

Project Summary: The empathy ethogram project at the Racine Zoo installed QR code-focused signage, encouraging zoo guests to contribute to animal wellbeing by answering brief surveys about animal behavior. The project aimed to help guests identify individual animals and understand common behaviors, fostering empathy by inviting them to step into the behavior scientist role. The feedback collected from the surveys directly informed animal care decisions, such as improving the rhinos' outdoor visibility and enhancing the penguin pool environment.

Achieved Outcomes: The project resulted in a significant number of guests actively participating in the QR code surveys and demonstrating a meaningful understanding of animal behaviors. Guests frequently expressed empathy in their responses, using the animals' names and commenting on how they might feel. This real-time data helped animal care staff make informed decisions and improved guest engagement. Additionally, the project built a stronger capacity for empathy-based evaluations, which the zoo plans to expand upon by including more species and further adapting the program in the future.

Click [here](#) view the webinar and resources associated with this project

Success Story: The following quote was collected from a survey with the question: "Did you learn anything new about rhinos during your visit today?":

"I learned that rhinos' mental health (and every other animal), like humans, can take a huge toll due to changes in their environment and everyday life, like the COVID pandemic. I noticed Kianga pacing in the back of his habitat, and was thinking that if he has had anxiety due to changes in his life, then other rhinos (and animals) in the wild likely have a lot of stress when their environment and other animals are threatened due to poaching, deforestation, etc." - August 4, 2024



Scannable QR code on African Penguin signage.

For further information on grant projects and the Advancing Empathy Grant Program, please reach out to empathygrants@zoo.org