The Crash

April 2026 "The Spring Edition"

The IRKA newsletter: the leading network connecting rhino professionals.

President's Perspective

Welcome to the Spring edition of the Crash!

I hope everyone is enjoying the warmer weather and the sense of renewal that comes with this time of year.
That spirit of looking ahead carried through the winter, as IRKA's Board of Directors worked to select the next host for our beloved Rhino Keepers Workshop. We're excited to share that the 2027 RKW will be held at the Jacksonville Zoo and Gardens! So start getting your sunscreen ready—we're heading to the Sunshine State. Dates are still being finalized, and we'll share more details as soon as they're confirmed.
Continuing with this theme of growth and new beginnings, this issue features Ryan Taylor's article on the Milwaukee County Zoo's brand-new $22.6 million Rhino Care Center. This innovative space represents a major step forward in both animal care and guest experience, with thoughtfully designed indoor and outdoor habitats that support year-round viewing and provide enriching, naturalistic environments. The arrival of Zuri and Kianga further highlights the zoo's important role in conservation and the future of this critically endangered species.
That sense of optimism continues with a special celebration this March. We join the International Rhino Foundation and the Sumatran Rhino Sanctuary in honoring Sedah Mirah, Rosa's first calf, on her 4th birthday. Her milestone is more than just a celebration—it's a powerful reminder of the dedication, collaboration, and perseverance driving efforts to save the Sumatran rhino.
Staying connected and continuing to learn are also important parts of our community. If you've ever missed a webinar due to a busy schedule, you can now catch up anytime by registering on the website. With access to a wide range of topics, it's a valuable resource—and if there's something you'd like to see covered or would like to share yourself, we encourage you to reach out and be part of the conversation.
Finally, we highlight an important research review by Chimes et al. that explores the global use of rhino dehorning as a strategy to combat poaching. As one of several tools in rhino conservation, the review examines its long-term effectiveness and reminds us that protecting a species so close to our hearts requires thoughtful, multifaceted approaches.
Enjoy your Spring!

Peace, Love, Rhinos

Chris Bobko

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We are happy to announce the 2027 Rhino Keeper Workshop will be hosted by Jacksonville Zoo!

Browse to bloodstream:
Linking diet, microbes, and metabolism to advance rhino health

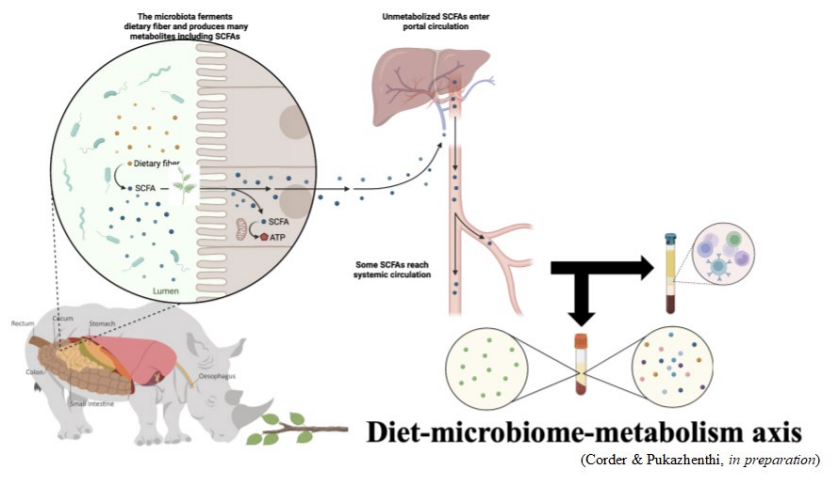
Insurance populations are essential for species survival. Within our own lifetimes, we have witnessed the extinction of the western black rhinoceros (Diceros bicornis longiceps), officially declared extinct in 2011. With no western black rhinos in human care anywhere in the world, reintroduction was not possible, and the subspecies was lost forever. This underscores the importance of managing insurance populations for the remaining black rhinoceros subspecies. In the United States, two of the three extant black rhinoceros subspecies are maintained in human care: the eastern (D. b. michaeli) and south-central (D. b. minor). Beyond providing opportunities for public engagement and conservation outreach, animals in human care represent a genetic reservoir to protect the species against impending extinction risks. However, management of black rhinos in human care can be challenging as unusual disease syndromes are commonly reported ex situ but are not known to be present among their wild counterparts. Disease syndromes are complex reflecting high inflammatory burdens and diverse manifestations of immune and metabolic dysfunction. Overlapping disease phenotypes limit diagnostic specificity and highlight the need to understand the underlying disease process.

Dr. Budhan Pukazhenthi

Dr. Molly Corder

In 2018, researchers from the Smithsonian National Zoo & Conservation Biology Institute teamed up with zoos and conservation organizations in the United States and several black rhino range countries to understand how black rhinos live and thrive in the wild. This research was possible thanks to the contributions of many animal care teams committed to enhancing rhino health, wellbeing, and conservation. In coordination with a global team of conservationists, the Smithsonian's Black Rhino Health Project aims to enhance black rhino population sustainability across conservation landscapes: in the wild and in human care. Over the past eight years, the team generated hundreds of thousands of data points on black rhinos across conservation landscapes. Although extensive research is still needed before these findings can result in new management practices, early results are revealing exciting new insights into what black rhinos (both in the wild and in human care) eat, how diet may shape the gut microbiome, and how the gut may in turn influence health.

The gut microbiome is a living ecosystem. What we feed that ecosystem determines which microbes flourish and which decline. When the diet changes, we anticipate that the gut microbial community will shift as well. Because it was not possible to directly measure nutrients – such as fiber, protein, carbohydrates, minerals - in all plants consumed by free-ranging wild black rhinos, the team sequenced plant DNA from rhino feces to reconstruct the diet profiles (plant diversity present) and found that wild black rhinos browse on a remarkably diverse array of plants, which feeds their gut microbiome and nourishes gut lining. By next sequencing the microbial DNA from rhino feces, the team also characterized the genomes of bacteria, archaea, viruses, and fungi and determined that gut microbiomes differ significantly between rhinos in the and those in human care. Interestingly, wild rhino gut microbiomes were highly similar to one another, while those in human care were far more variable. Beyond finding differences in which microbes are present in the gut, researchers also detected differences in in their function - how food is processed, how chemical signals are generated, and how chemical signals could make it to circulation and shape animal health. Perhaps most striking, the team discovered that wild black rhino guts are dominated by novel, uncharacterized microorganisms-species completely unknown to science – whose functions remain largely unknown.



Chemical signals originating from diet and the gut can impact many physiological functions to support the immune system, regulate inflammation, or contribute to organ health. Similarly, some gut microbiome changes can be detrimental to health and make some individuals more susceptible to disease. The gut lining is home to a massive portion of the immune system; and crosstalk between the gut and the rest of the body can shape health outcomes. The team recently published the first-ever immunoproteome-immune cell atlas-for any endangered mammal species and discovered that the oral-gut-liver axis regulates ex situ disease syndromes. Most recently, the team also found signals suggesting that animals in human care may be susceptible to developing “leaky gut”-like syndrome, which could lead to significant systemic inflammation and abnormal immune function. Importantly, the liver – the body’s central metabolic organ – sits strategically between the gut and the circulatory system, acting as a gatekeeper for what enters wider circulation. The team set out to understand what metabolic signals make their way into the bloodstream and what this may mean for animal health. Findings are beginning to map out a chain of connections – from diet to gut to blood stream to whole-body health – that may help explain why black rhinos in human care may experience diverse disease syndromes.

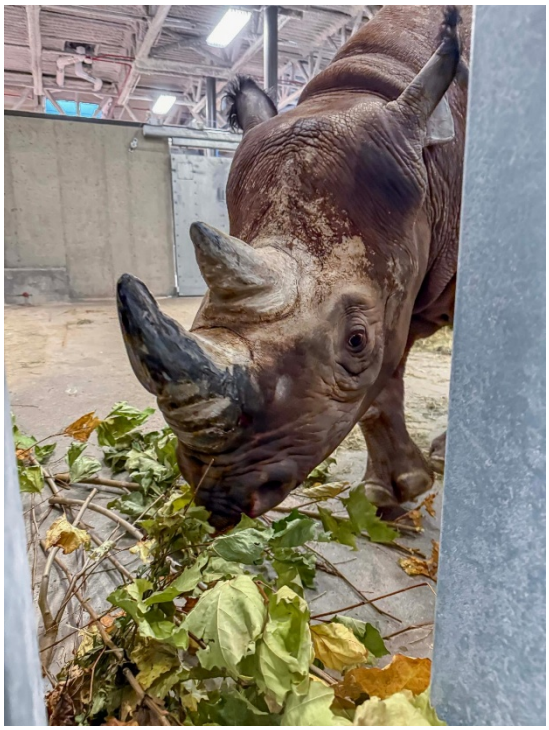
Our community has long speculated that diet is, at least in part, involved in health challenges of black rhinos in human care. While extensive research and validation are still needed before these findings can inform new management practices, recent findings substantiate existing recommendations from the AZA Nutrition Advisory Group, which recommends feeding as much browse as possible to animals in human care. The present research is still in the early stages, and we have a lot to learn about safety and efficacy of diet items consumed by wild rhinos. To be clear, we do not advise any dietary changes be made without consulting with wildlife nutritionists, veterinarians, and animal managers. We hope that pending future validation and safety/efficacy studies, findings from this research will explain what factors may support the health of wild rhinos and, in the future, we hope to translate these lessons into meaningful management opportunities for optimizing health and well-being of animals in human care.

Dr. Molly Corder & Dr. Budhan Pukazhenthi
Smithsonian’s National Zoo & Conservation Biology Institute Center for Species Survival

Read the full article

Milwuakee County Zoo's New Habitat

In December 2025, the Milwaukee County Zoo opened a new $22.6 million Rhino Care Center- a project that spanned over 15 months from groundbreaking to completion. The building is 61,000 square feet, creating a habitat design that brings guests closer than ever to rhinos and hippos, and provides a fresh option to view the animals inside during the winter months in Wisconsin. In addition, the Rhino Care Center creates flexibility for how the animal care team provides for the animals. The indoor habitat was designed to allow for other hoofstock species to enjoy the new space, and the divider rock wall planter provides enrichment options with browse holders and eye bolts for hanging enrichment.



The outdoor yards provide over 36,000 square feet including individual yards for rhinos, zebras and red river hogs. The exterior yards that were redesigned uses 100% of previous animal viewing yards with enhanced space usage opportunities.

The Rhino Care Center, which prioritizes animal care and wellbeing, aligns with research-supported best practices for habitat design that affords the best offerings in overall animal care. All areas extend the possibility of conducting behavioral, nutritional, and reproductive assessments.

Guests will now be able to view rhinos in a more naturalistic indoor habitat which uses roughly 75% of the old building renovated into this new design marking a project with a focus on sustainability. The space transforms how guests can visit animals year-round at MCZ with the habitat design and interactive space. In the future, the Zoo is working towards creating an opportunity for guests to have up close interactions with the rhinos. MCZ welcomed two Eastern black rhinos, Zuri and Kianga, in late October 2025. They have been paired at MCZ due to a breeding recommendation for the Eastern Black Rhino SSP. Both rhinos have acclimated well to their new homes and are comfortable in their stalls and habitats. They have also got to know their zookeepers as well. Zuri and Kianga both actively participate in training and medical behaviors.

Ryan Taylor
Milwaukee County Zoo

A Milestone Birthday

**Repost of International Rhino Foundation newsletter*

Sumadi Hasmaran, Manager of Sumatran Rhino Sanctuary and Sedah Mirah

This week, the Sumatran Rhino Sanctuary was buzzing with joy as Sedah Mirah turned 4!

Sedah Mirah's life is a true testament to resilience. Her mother, Rosa, was brought to the sanctuary for her own safety after she began frequenting local villages in search of food. The road to motherhood was long and difficult; after the heartbreak of eight miscarriages, Rosa finally gave birth to Sedah Mirah on March 24, 2022.

Happy Birthday, Sedah Mirah!

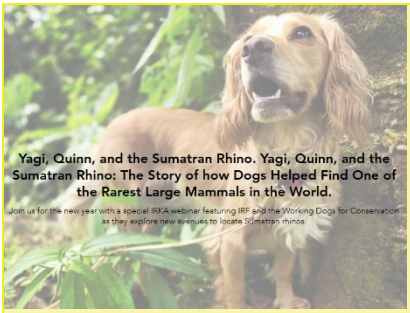
Image of Sumatran rhino courtesy of the Indonesian Ministry of Forestry

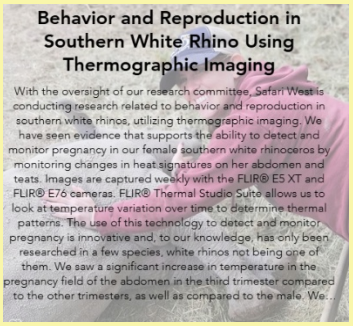
For more information about Roas, Sedah Mirah, and Sumatran rhino conservation please visit the IRF website www.rhinos.org.

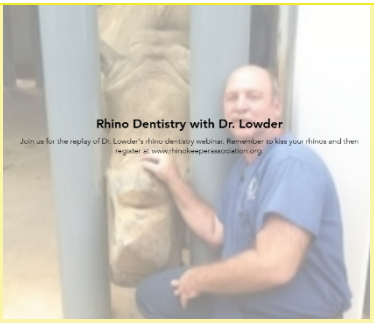
Webinar Recordings

Did you know members can view recordings of all the past webinars on the website?
You just need to sign up to register with the website

Visit our Website

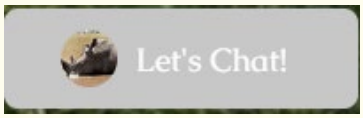






Once a registered website member, you will have access to over a dozen recorded webinars covering topics such as Assisted Reproduction, RAG/TAG Rhino Conservation, Enrichment Building, and many many more. Was there something you want to see again or share with a colleague?

Help keep the conversation going!
If there is a project you want to share, or a topic you would like to see in the future
Just send us a message by clicking the button at the bottom right of the page.



Research Review:

The present status of knowledge on the global use of rhinoceros dehorning: a systematic review.

In their paper entitled “The present status of knowledge on the global use of rhinoceros dehorning: A systematic review”, Chimes et al. provide a comprehensive systematic review of the global use of rhinoceros dehorning as a conservation strategy to combat poaching. Drawing on 120 publications published up to mid-2024, the authors examine how dehorning has expanded across southern Africa in response to persistent illegal hunting. The review finds that while dehorning has become more widespread and less costly over time, much of the existing research is not peer-reviewed and often limited to single sites, making broader conclusions difficult. The most commonly discussed topic in the literature is the potential role of dehorning in supporting a legal rhino horn trade, followed by its biological impacts and effectiveness in reducing poaching.

Overall, the evidence suggests that dehorning can reduce poaching at a local scale, particularly when combined with other anti-poaching measures, but its effectiveness at larger, regional or global scales remains uncertain. Some studies indicate that poaching declines in dehorned populations, though there are concerns that poaching may shift to areas where rhinos remain horned. Biologically, dehorning appears to have minimal effects on reproduction and survival, though it may influence social behavior, movement patterns, and stress levels in some cases. Importantly, many of these findings are based on limited datasets, and significant knowledge gaps remain, especially regarding long-term ecological consequences and optimal management strategies.

Their review also highlights ongoing debate about whether horns obtained through dehorning could support a legal trade to fund conservation. While some argue this could reduce poaching pressure and generate revenue, others warn of risks such as increased demand, ethical concerns, and uncertainty about market responses. The authors conclude that although dehorning shows promise as a short-term, site-specific tool, it is not a standalone solution and reflects broader challenges in addressing the root causes of poaching. They emphasize the urgent need for more large-scale, peer-reviewed research to better understand the ecological impacts, effectiveness, and policy implications of dehorning within global rhino conservation efforts.

Reference:

Chimes LC, Kuiper T, Downs CT. The present status of knowledge on the global use of rhinoceros dehorning: a systematic review. Biol Conserv. 2025;311:111456. doi:10.1016/j.biocon.2025.111456

Correspondences

Births:

The Wilds ---------- male SWR
Lincoln Park Zoo ---------- female eastern black
Whipsnade Zoo ---------- male SWR "Mick"
Zoo Schmiding ---------- male SWR "Nuru"
Zoo de Beauval ---------- female GOH "Neytiri"
Altina Wildlife Park ---------- male SWR "Clark Kent 'CK'"
Knowsley Safari Park ---------- male SWR "Stanley"
Rolling Hills Zoo ---------- male SWR
Marwell Wildlife ---------- SWR

Deaths:

Pheonix Zoo ---------- male GOH "Bhotu"

Transfers:

Potawatomi Zoo received male SWR "Frankie" from **Brevard Zoo**
San Diego Zoo Safari Park received male SWR "Moose" from **White Oak**
Safari Park Dvur Kralove received eastern black "Malia" from **Zoo Magdenburg**
Zooparque Itatiba received SWR male "Atanasio" from **Buinzoo Biopark**

New Members

Michael Al-nimri ---------- Nashville Zoo
Morgan Jones ---------- Nashville Zoo
Ashley Leininger ---------- Nashville Zoo
Emily Mack ---------- Nashville Zoo
Ann Winston Thym ---------- Nashville zoo
Dakota Sullivan ---------- Nashville Zoo
Timothy Lloyd ---------- Iowa Dept. of Agriculture
Lochlan Wilkinson-Wright ---------- Chester Zoo
Emily Downer ---------- Australia Zoo
Tyler Gralton ---------- Australia Zoo
Camryn Justic ---------- Metro Richmond Zoo
Grace Bally ---------- Ellen Trout Zoo
Robert Jackson ---------- Ellen Trout Zoo

Conservation Partners are conservation organization or zoological institution which supports rhino conservation in accordance with the objectives and purpose of the IRKA. These partnerships often provide discounts for the supporting institution . It is important that as the IRKA grows we continue to garner the support from all facilities that are responsible for the protection and management of

rhinoceros. We would like to extend our appreciation for the support from the following institutions, and hopefully we can add your zoo to this growing list! If you or your institution are interested in becoming a Conservation Partner, please visit:
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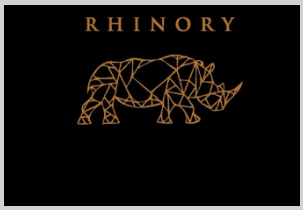
IRKA Partners

2026 Conservation Partners



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