WELCOME TO ZOONOMICS NEWS!

This newsletter, compiled by the Center for Zoonomics based at Zoo New England, is your place to share and learn about the exciting work accredited zoos and aquariums are doing in the fields of genetics and biobanking.

To keep this newsletter as dynamic and relevant as possible, **we'd love to hear from you!** Whether you're working on a new project, have a recent publication to share, or want to highlight upcoming events or activities, let us know. We're here to celebrate and share your contributions with the community.

Send your updates and questions to us at zoonomics@zoonewengland.org. We can't wait to hear from you!

NEWS AND UPDATES

Biobanking session at 2026 Mid-Year Meeting

The Biobanking Scientific Advisory Group and the AZA Molecular Data for Population Management Scientific Advisory Group will co-host a biobanking session—open to all—at the AZA Mid-Year Meeting in Atlanta, Georgia, on Sunday, March 22, 2026, from 1–5 pm EST. This session on biobanking will bring the zoo community together to build a shared understanding of the scope and impact of biobanking, collaboratively surface our most pressing needs, provide a clear landscape of ongoing initiatives and resources, and co-develop a framework for stronger communication and coordination across emerging biobanking efforts. We hope you can join!

Working group developing a proposal for a biobanking alliance

Following eight months of collaborative, community-driven discussions on biobanking and sample sharing, the Zoonomics Working Group, at the invitation from AZA, will develop a proposal for a zoological biobank alliance. Work will begin in early 2026 with participation from representatives across multiple AZA member institutions. This effort aims to advance research and conservation of wildlife by making access to zoological biospecimens and associated data more efficient, coordinated, and robust. For more info, contact Danica Wolfe at zoonomics@zoonewengland.org.

Global zoos partner to strengthen wildlife conservation through cryobanking

Toronto Zoo, Chester Zoo, and Dublin Zoo announced in October 2025 a new international partnership to advance wildlife cryobanking. The collaboration will focus on preserving living genetic material from threatened species to protect genetic diversity and support future conservation and restoration efforts. By sharing expertise, improving cryopreservation techniques, and aligning with global initiatives, the three zoos aim to strengthen the role of accredited zoos as leaders in innovative, collaborative solutions to biodiversity loss worldwide. Read the full announcement here.

Zoo Museum (ZooMu) Network hosts physical collections workshop

In October 2025, the ZooMu Network hosted a “Physical Collections Workshop” at the Oklahoma City Zoo. This workshop, with 22 participants from 20 institutions, aimed to strengthen collaboration between museums and the zoo and aquarium community. The group identified cultural and logistical barriers separating the two communities. Key outcomes included drafting an MOU template for zoo/aquarium–museum partnerships, outlining a quick guide for specimen transfers, and initiating a “10 Simple Rules” framework for collaboration. Learn more about ZooMu here.

Call for living samples of Southeast Asian Wild Pigs

Mandai Nature has released a statement of need for biobanking biospecimens from Southeast Asian wild pigs. These species are vulnerable to African Swine Fever (ASF), one of the most devastating diseases affecting domestic and wild pigs. The initiative aims to preserve genetic diversity by banking tissues and cells of these high–priority species, with the ultimate goal of generating iPSCs for research. In support of this initiative, San Diego Zoo Wildlife Alliance’s Frozen Zoo® is willing to establish cell lines from samples collected from facilities in the United States. For more information about the initiative, read the Statement of Need here and contact Nicole Tay at nicole.tay@mandai.org.sg. For specific information about submitting samples to the Frozen Zoo®, please contact Marlys Houck (mhouck@sdzwa.org).

New IUCN Biobanking Guidelines for Conservation Purposes published

In late 2025, the IUCN Biobanking Guidelines for Conservation Purposes were officially published to the IUCN portal. Developed by the IUCN SSC Conservation Genetics Specialist Group with input from multiple SSC groups, the guidelines provide a practical framework for establishing, managing, and implementing biobanks while outlining relevant international and national regulations. By promoting a harmonized, standardized approach within a global network, they aim to maximize the potential of biobanks worldwide. The guidelines also align closely with the newly approved IUCN Motion 088 on developing a global standard for genetic diversity assessments. Read the guidelines here.

PUBLICATIONS

Zoos and aquariums are making great contributions to genetics research and biobanking, and we're eager to keep you informed about these advancements. If you have or know of a recent publication, please e-mail us at zoonomics@zoonewengland.org so we can include it in our next newsletter.

A coordinated biobank alliance for the zoological and conservation community
Zoos and aquariums are strongly positioned to lead population-wide research that supports animal health, wellbeing, and species survival, but inter-institutional barriers make it difficult to access existing zoological biospecimens and data at scale. To address these barriers, the authors of this perspective piece propose a community-guided biodiversity biobank alliance. This effort would develop shared resources, standards, and ethical frameworks to improve how biological samples and data are collected, stored, and shared, to strengthen research, conservation, and collaboration across the zoological community. Read the preprint on EcoEvoRxiv here.

Integrating biological and environmental data to solve key scientific and societal challenges
U.S. biodiversity collections, including museums and zoos, hold over a billion specimens that are critical for understanding life on Earth and how species respond to environmental change, yet much of these data remains fragmented. Cross-institutional integration, including linking data with collections, environmental datasets, and larger research networks, is increasingly recognized as essential for advancing conservation research and species management. A new community-driven roadmap outlines plans for Building an Integrated, Open, Findable, Accessible, Interoperable, and Reusable (BIOFAIR) Data Network. Organized around five key themes, including gap analysis and community building, the roadmap provides a clear path toward stronger infrastructure, shared best practices, and more accessible biodiversity data. Read more in BioScience.

Danica Wolfe, Project Coordinator

zoonomics@zoonewengland.org

Sent to: zoonomics@zoonewengland.org