

**Terri Lynn Roth**  
 VP Conservation & Science and CREW Director  
 Center for Conservation and Research of Endangered Wildlife  
 Cincinnati Zoo & Botanical Garden, 3400 Vine Street, Cincinnati, OH 45220

**Education/Training**

Institution and Location	Degree	Year(s)	Field of Study
University of California, Davis, CA	B.S.	1986	Animal Science
University of California, Davis, CA	M.S.	1988	Animal Science
Louisiana State University, Baton Rouge, LA	Ph.D.	1991	Animal Science

**Professional Honors**

<u>AZA National Research Award</u> , Columbus, OH, September	2023
<u>YWCA Career Women of Achievement Award</u> , Cincinnati, OH	2010
<u>One Hundred Wise Women of Cincinnati</u> , Cincinnati, OH,	2007
<u>Chevron Texaco Conservation Award</u> , San Ramon, CA	2004
<u>Forty Under 40 Honoree</u> , Cincinnati Business Courier Award, OH,	2002
<u>Society for the Study of Reproduction New Investigator Finalist</u> , Vancouver, B.C.	1991
<u>International Embryo Transfer Society Student Research Winner</u> , San Diego, CA	1989

**Current Professional Positions**

<u>Director, Center for Conservation and Research of Endangered Wildlife</u> , Cincinnati Zoo and Botanical Garden, Cincinnati, Ohio	1996-present
<u>Vice President of Conservation &amp; Science</u> , Cincinnati Zoo and Botanical Garden, Cincinnati, Ohio	2001-present
<u>Vice President Asia Programs</u> , International Rhino Foundation Board	2002-present
<u>Chair, Rhino Research Council</u> , Association for Zoos and Aquariums, Rhino Taxon Advisory Group	2002-present
<u>Association of Zoos and Aquariums Research and Technology Advisory Group Member</u>	2010-present
<u>Member, Theodore Roosevelt Genius Prize Advisory Council and Boards</u> , U.S. Department of the Interior U.S. Fish and Wildlife Service.	2021-2023

**Select Peer-Reviewed Scientific Manuscripts (from over 90 full papers)**

- Roth, TL.** 2023. That was then, this is now – Over two decades of progress in rhinoceros reproductive science and technology. *Theriogenology Wild* 4, doi: 10.1016/j.therwi.2023.100065.
- Rispoli, LA and **TL Roth.** 2023. Validation of the iSperm for assessing rhinoceros sperm. *Theriogenology Wild* 3, doi: 10.1016/j.therwi.2023.100048.
- Roth TL**, EM Donelan, LA Rispoli and T Reilly. 2023. Prolactin enzyme-linked immunosorbent assay for rhinoceroses—another tool for assessing reproductive function and dysfunction in this taxon. *Theriogenology Wild*, doi: 10.1016/j.therwi.2023.100035
- Brandhuber M, S Atkinson, C Cunningham, **T Roth** and E Curry. 2023. Assessing Dehydroepiandrosterone Sulfate (DHEAS) as a novel biomarker for monitoring estrus and successful reproduction in polar bears. *General and Comparative Endocrinology*, 338, doi: 10.1016/j.ygcen.2023.114276.

- Curry E, ME Philpott, J Wojtusik, WD Haffe, MA Wyder, KD Greis and **TL Roth**. 2022. Label-free quantification (LFQ) of fecal proteins for potential pregnancy detection in polar bears. *Life* 12:796. doi: 10.3390/life12060796
- Donelan EM, MP Philpott, KM MacKinnon, KA Klosterman and **TL Roth**. 2022. Faecal glucocorticoid metabolite concentrations associated with illness, sex, age, and season in a kea *Nestor notabilis* population at the Cincinnati Zoo and Botanical Garden. *Journal of Zoo and Aquarium Research* 10(2):107-114, doi: 10.19227/jzar.v10i2.654
- Roth TL**, M Philpott and J Wojtusik. 2022. Rhinoceros serum labile plasma iron and associated redox potential: interspecific variation, sex bias and iron overload disorder disconnect. *Conservation Physiology* 10(1), doi: 10.1093/conphys/coac025
- Curry E, M Skogen and **TL Roth**. 2021. Evaluation of an odour detection dog for non-invasive pregnancy diagnosis in polar bears (*Ursus maritimus*): Considerations for training sniffer dogs for biomedical investigations in wildlife species. *J Zoo & Aquarium Research* 9:1-7.
- Wojtusik J, IMC Brandicourt, W Rice and **TL Roth**. 2020. Reproductive cycle and pregnancy monitoring in the common hippopotamus *Hippopotamus amphibius* through salivary steroid analyses and transabdominal ultrasonography. *Journal of Zoo and Aquarium Research* 8(3), DOI: <https://doi.org/10.19227/jzar.v8i3.494>
- Curry E, JS Easley, J Wojtusik and **TL Roth**. 2020. Identification of mink (*Neovison vison*) fecal proteins during embryonic diapause and placental pregnancy for non-invasive pregnancy diagnosis in wildlife. *Bioscientifica Proceedings* 10:101-112.
- Pollock, KE, JK O'Brien, **TL Roth**, J Proudfoot, J Niederlander, L Micheas, TR Robeck and MA Stoops. 2020. Anti-Müllerian hormone in managed African and Asian rhino species. *General and Comparative Endocrinology* 294, DOI: <https://doi.org/10.1016/j.yggen.2020.113487>
- Roth TL**, A Switzer, M Watanabe-Chailland, EM Bik, DA Relman, LE Romick-Rosendale and NJ Ollberding. 2019. Reduced gut microbiome diversity and metabolome differences in rhinoceros species at risk for iron overload disorder. *Frontiers in Microbiology*, DOI: <https://doi.org/10.3389/fmicb.2019.02291>
- Wojtusik J, MA Stoops and **TL Roth**. 2019. Animal protein-free OptiXcell and shortened equilibration periods can replace egg yolk-based extender and slow cooling for rhinoceros semen cryopreservation. *Cryobiology*, doi.org/10.1016/j.cryobiol.2019.06.003
- Bryant JL and **TL Roth**. 2018. Annual fecal glucocorticoid metabolite concentrations in pregnant and pseudopregnant polar bears (*Ursus maritimus*) in North American zoos. *J Zoo Aquar Res* 6(1): 6-11. DOI:<https://doi.org/10.19227/jzar.v6i1.259>
- Roth TL**, PR Reinhart and JL Kroll. 2017. Serum ferritin concentration is not a reliable biomarker of iron overload disorder progression or hemochromatosis in the Sumatran rhinoceros (*Dicerorhinus sumatrensis*). *J Zoo Wildl Med* 48(3):645-658.
- Roth TL**, MW Schook and MA Stoops. 2017. Monitoring and controlling ovarian function in the rhinoceros. *Theriogenology* 109:14-21. DOI: <https://doi.org/10.1016/j.theriogenology.2017.12.007>
- Curry E, S Safayi, R Meyerson and **TL Roth**. 2015. Reproductive trends and longevity of polar bears (*Ursus maritimus*) in North American zoos: a historical analysis. *J. Zoo and Aquar. Res.* 3:99-106.
- Curry, E, J Wyatt, LJ Sorel, KM MacKinnon and **TL Roth**. 2014. Ovulation induction and artificial insemination of a captive polar bear (*Ursus maritimus*) using fresh semen. *J. Zoo Wildl. Med.* 45:645-649.