Erin Curry

Center for Conservation and Research of Endangered Wildlife (CREW)
Cincinnati Zoo and Botanical Garden, Cincinnati, OH

CURRENT POSITION

Director, Polar Bear *Signature* Conservation Project 2023-present
Center for Conservation and Research of Endangered Wildlife (CREW)
Cincinnati Zoo & Botanical Garden, Cincinnati, OH

PREVIOUS EMPLOYMENT

Reproductive Physiologist, CREW 2014-2023
Post-Doctoral Fellow, CREW 2011-2014

PROFESSIONAL SERVICE

Polar Bear Research Council, Co-chair 2022-present
Bear Taxon Advisory Group, Reproduction Advisor 2021-present
Zoo Biology, Editorial Board 2021-present
Polar Bear SSP Steering Committee, Scientific Advisor 2020-present
Bear Taxon Advisory Group Steering Committee, Member 2019-present
Red Panda Species Survival Plan, Research Advisor 2017-present
Polar Bear Research Council, Reproduction Advisor 2017-present

EDUCATION

Doctor of Philosophy, Animal and Veterinary Sciences 2010
Clemson University, Clemson, SC
Concentration: Reproductive Physiology / Molecular Biology

Master of Science, Animal Physiology 2007
Clemson University, Clemson, SC
Concentration: Animal Physiology / Reproductive Physiology

Bachelor of Science, Agriculture 2003
University of Delaware, Newark, DE
Major: Animal Science; Concentration: Wildlife Conservation; Minor: Psychology

PUBLICATIONS

Peer-Reviewed Journals (most relevant of 25 total)

25. Dedato M, Magerman J, Berke O, **Curry E**, Mastromonaco G. (2023). Understanding pregnancy-related hormones in female red pandas. *Theriogenology Wild* 3:100053 doi:10.1016/j.therwi.2023.100053.
24. Rzucidlo C, **Curry E**, Shero M. (2023). Non-invasive measurements of respiration and heart rate across wildlife species using Eulerian video magnification of infrared thermal imagery. *BMC Biology* 21:61. doi: 10.1186/s12915-023-01555-9
23. Brandhuber M, Atkinson S, Cunningham C, Roth T, **Curry E**. (2023). Assessing dehydroepiandrosterone sulfate (DHEAS) as a novel biomarker for monitoring reproduction in polar bears. *General and Comparative Endocrinology* 338:114276. doi: 10.1016/j.ygcen.2023.114276.
22. **Curry E**, Philpott ME, Wojtusik J, Haffey WD, Wyder MA, Greis KD, Roth TL. (2022). Label-free quantification (LFQ) of fecal proteins for potential pregnancy detection in polar bears. *Life* 12:796. doi: 10.3390/life12060796

21. Wojtusik J, Roth TL, **Curry E**. (2022). Case studies in polar bear (*Ursus maritimus*) sperm collection and cryopreservation techniques. *Animals* 12:430.
17. **Curry E**, Skogen M, Roth TL. (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. *Journal of Zoo & Aquarium Research* 9:1-7.
16. Bourque J, Desforges JPW, Levin M, Atwood TC, Sonne C, Dietz R, Jensen TH, **Curry E**, McKinney MA. (2020). Climate-associated drivers of plasma cytokines and contaminant concentrations in Beaufort Sea polar bears. *Science of the Total Environment* 745:140978.
12. **Curry E**, Safayi S, Meyerson R, Roth TL. (2015). Reproductive trends of captive polar bears (*Ursus maritimus*) in North American zoos: a historical analysis. *Journal of Zoo and Aquarium Research* 3:99-106.
11. **Curry E**, Wyatt J, Sorel L, MacKinnon KM, Roth TL. (2014). Ovulation induction and artificial insemination of a captive polar bear (*Ursus maritimus*) using fresh semen. *Journal of Zoo and Wildlife Medicine* 45:645-649.
10. **Curry E,** Roth TL, MacKinnon KM, Stoops MA. (2012). Factors influencing annual fecal testosterone metabolite profiles in captive male polar bears (*Ursus maritimus*). *Reproduction in Domestic Animals* 47:222-225.
8. **Curry E**, Stoops MA, Roth TL. (2012). Non-invasive detection of candidate pregnancy protein biomarkers in the feces of captive polar bears (*Ursus maritimus*). *Theriogenology* 78:308-314.

Author or co-author on ~50 conference proceedings presented at national or international conferences. A complete list of scientific abstracts and presentations is available upon request.

GRANTS AWARDED (most relevant of $1.2M since 2014)

2023-2026. The Institute of Museum and Library Services. Project title: Innovative reproductive assistance for overcoming sustainability challenges with bear populations in zoos. Role: Principal investigator. Amount: $649,060.

2021-2023. The Institute of Museum and Library Services. Project title: Enhanced stewardship of polar bear collections. Role: Principal investigator. Amount: $196,462.

2021-2023. Morris Animal Foundation. Project title: Investigation of serum hormones as biomarkers of reproductive health in polar bears (*Ursus maritimus*). Role: Co-investigator / Mentor. Amount $92,389.

2018-2021. The Institute of Museum and Library Services. Project title: Collections stewardship of captive polar bears. Role: Principal investigator. Amount: $244,216.

2019. International Bear Association, Experience and Exchange Grant. Project title: Analyzing hormone patterns of male polar bears (*Ursus maritimus*) in human care under different social conditions. Role: Mentor. Amount: $2,500.

2014-2015. Association of Zoos and Aquariums Conservation Grants Fund. Project title: A novel, non-invasive approach to developing a bench-side assay for pregnancy diagnosis in wild and captive polar bears (*Ursus maritimus*). Role: Principal investigator. Amount: $20,380.