

# HALEY BEER, Ph.D.



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*\*A friendly note: My CV slightly deviates from traditional layout norms in favor of a more personalized touch. I hope it brings a refreshing rhythm to your day and demonstrates my ability to blend creativity with professionalism.\**

## Objective

I am a goal-oriented postdoctoral research associate and adjunct professor with a passion for investigating the welfare and behavioral aspects of animals in managed environments. Seeking a fulfilling career that not only allows me to contribute to scientific advancements but also enables me to impart knowledge and inspire the next generation of animal enthusiasts. As an ideal team player, I bring excellent communication and interpersonal abilities that foster a positive atmosphere.

## Education and Training

- Postdoc** University of Nebraska-Lincoln, Animal Science (behavior, welfare, PLT), Current
- Ph.D.** University of Nebraska-Lincoln, Animal Science (behavior analysis, stress physiology), Dec. 2022
- M.S.** University of Nebraska-Lincoln, Animal Science (conservation physiology), May 2020
- B.S.** University of Nebraska-Lincoln, Animal Science (companion animal health), May 2016  
University of Virginia, Semester at Sea (multinational academic travel program), Spring 2016

## Professional Experience

**Adjunct Professor**, Applied Animal Welfare and Behavior, Husson University, May 2024 – Present

- Develop comprehensive course materials for an online graduate level 'Applied Animal Management' course, focusing on animal, human, and business dimensions related to welfare.
- Collaborate with colleagues and industry professionals to enhance curriculum and provide students with a deeper understanding of applied animal welfare through hands-on projects and real-world applications.

**Adjunct Professor**, School of Natural Resources, University of Nebraska, August 2023 – Present

- Develop and co-teach the Ecophysiology course, building a curriculum for both undergraduate and graduate students.
- Employ interactive teaching and modern media (videos, simulations) to boost engagement and understanding.
- Work with field experts to integrate current issues and advances into lectures.

**Postdoctoral Researcher**, Animal Science, University of Nebraska, February 2023 – Present

- Design and implement engaging lesson plans for online and onsite classes.
- Spearhead outreach initiatives aimed at boosting program enrollment by showcasing the value and uniqueness of our curriculum.
- Lead video monitoring projects from inception to execution, including the coordination of camera installation, data backup, maintenance, and analysis.
- Directly supervise and mentor undergraduate research assistants, providing guidance on research methodologies and professional development.
- Foster collaborative partnerships with neighboring zoos, such as Lincoln Children's Zoo for teaching specialized onsite classes, and Omaha Henry Doorly Zoo for project management and research endeavors.

**Conservation & Welfare Coordinator**, Lincoln Children's Zoo, April 2022 - January 2023

- Created cohesive frameworks of practical applications conducive to promoting species-appropriate behavioral opportunities.
- Motivated staff to enhance current methods of training, environmental enrichment, and welfare.
- Conducted staff training and ensured incremental progress improving behavioral husbandry practices.
- Documented meetings on welfare issues and played an active role in implementing and supervising potential solutions.

**Graduate Research Assistant**, University of Nebraska, August 2020 - April 2022

- Led a captive cheetah conservation study and maintained collaboration with the Lincoln Children's Zoo.
- Assisted in lecturing, content development, and grading for an undergraduate physiology course.
- Adhered to lab protocols and operated a variety of equipment for different studies to ensure accuracy and efficiency in data collection.
- Coordinated and assisted with ovine research projects, focusing on data collection, sample preservation, and study logistics.
- Managed training, equipment, and animal records, as well as inventories of chemicals, drugs, biological samples, and reagents, upholding lab and research standards for productivity and safety.

**Graduate Teaching Assistant**, University of Nebraska, May 2018 - May 2020

- Co-instructed "Careers in Animal Science," educating students on the breadth of career opportunities within the field and preparing them for future professional paths.
- Facilitated undergraduate courses in Animal Science, including leading discussions, grading assignments, and providing personalized feedback to promote student success.
- Developed and coordinated educational outreach events through interactive demonstrations and online activities.
- Managed and coordinated class logistics, such as scheduling guest lectures, preparing educational resources, and setting up laboratory equipment.

**Avian Zookeeper**, Lincoln Children's Zoo, January 2017 - May 2018

- Ensured optimal care, health monitoring, and the provision of species-specific diets and enrichments to promote natural behaviors.
- Utilized operant conditioning to train behaviors (i.e., station, hold, present, crate, recall, etc.) to reduce stress during husbandry and medical procedures.
- Maintained and managed avian habitats involving regular cleaning, habitat design adjustments, and environment enrichment to mirror natural settings and support the birds' physical and mental health.
- Engaged with zoo guests to educate them about the birds, including their natural habits, conservation status, and the zoo's role in avian welfare, to enhance public understanding and support.
- Delivered both scripted and impromptu animal presentations to large crowds daily.

**Computer Operator**, Networks, November 2012 - August 2017

- Entered commands on computer terminal and peripheral equipment to integrate and operate ATM machines.
- Followed appropriate protocols and assisted bank representatives, their customers, and ATM technicians encountering technical complications.

**DNA Laboratory Technician**, Neogen, June 2016 - January 2017

- Performed DNA extraction from various sample types, including hair follicles and swab samples.
- Maintained equipment and instruments.

**Associate Zookeeper**, Lincoln Children's Zoo, April 2014 - August 2015

- Promoted from internship to maintain health, husbandry, and training of ponies, goats, llamas, and camels.
- Supervised zoo crew volunteers and managed animal-guest interactions with ponies, ensuring safe and enjoyable experiences.
- Initiated inspiring conversations with zoo guests to connect them more deeply to wildlife conservation.

**Veterinary Assistant**, Animal Care Clinic, May 2013 - September 2013

- Provided exercise, medication, and care to animals according to instruction.
  - Assisted with surgical procedures and monitored animals recovering from surgery.
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**Professional Service****Undergraduate/Graduate Team Assistant Coach**

- Animal Welfare Judging Team, University of Nebraska, August 2023 – May 2024

**Undergraduate Club Advisor**

- Fur, Scales, and Fins Club, Kansas State University, June 2022 - Present

**Selected Presenter**

- Western Section Conference, American Society of Animal Science, September 2021
  - "Intrauterine growth restriction conditions improve in utero with  $\omega$ -3 fatty acid infusions."
- International Congress for Conservation Biology, Society of Conservation Biology, July 2019
  - "Evaluation of allostatic load as a measurement of chronic stress in captive giraffe."

**Instructor/Co-Instructor/Teaching Assistant**

- ASCI 197: **Enrichment in Captivity**, Fall 2024 (8 students)
- ASCI 251J: **Basic Companion Animal Management – Specialty Animals**, Fall 2024 (16 students)
- ASCI 399: **Zoo Animal Wellness**, Spring 2023 (10 students) & 2024 (15 students)
- ASCI 271: **Companion Animal and Equine Behavior**, Spring 2019, 2020, & 2024 (~30 students)
- ASCI 496: **Independent Study**, Fall 2023 (8 students) & Spring 2024 (6 students)
- NRES 482: **Ecophysiology of Wildlife**, Fall 2023 (28 students)
- ASCI 251: **Introduction to Companion Animals**, Fall 2018, 2019, & 2023 (~30 students)
- ASCI 340: **Animal Physiological Systems**, Fall 2021 & 2022 (~32 students)
- ASCI 201: **Professional Development for Careers in Animal Science**, Spring 2020 (75 students)
- ASCI 370: **Principles of Animal Welfare**, Spring 2019 & 2020 (~28 students)

**Guest Lecturer**

- High School Zoo Academy, Omaha Henry Doorly Zoo, September & October 2023
- Human-Animal Interaction Retreat, UNL, ISU, & KSU Collaboration, June 2023
- Big Red Veterinary Science Camp, Nebraska 4H Club, June 2023 & 2024
- High School Veterinary Science Class, Chadron High School, May 2023
- ASCI 170, Introduction to Welfare, University of Nebraska-Lincoln, April 2023
- ASCI 370, Principles of Animal Welfare, University of Nebraska-Lincoln, March 2023
- High School Science Focus Program, Lincoln Public School, October 2022
- S.E.E.C.A. Club, University of Nebraska-Lincoln, March 2022

- Companion Animal Behavior, University of Nebraska-Lincoln, March 2020 & 2021
- Animal Biological Systems, University of Nebraska-Lincoln, September 2020
- Senior AP Biology, Chadron High School, April 2018-2020
- 8th Grade Science, St. Patrick's Catholic School, February 2018

### Research Project Lead

- Behavioral Assessment, Omaha Henry Doorly Zoo & Aquarium, April 2023 – Present
  - Manage data collection and 10 undergraduate students to record behavioral observations for 4 species (Black rhino, Western Diamondback Rattlesnake, White-Handed Gibbon, & Sloth Bear).
- Supplementation Study, University of Nebraska-Lincoln, July 2023
  - Coordinated ewe feeding trials to measure the effects of oral, maternal PUFA on IUGR fetuses and collected physiological biometrics at necropsy.

### Conservation Research Collaborator

- Musekese Conservation Camp, Zambia, June 2022 - Present
  - Monitor wildlife populations via solar powered security systems.
- Northern Tuli Game Reserve, Botswana, June 2019
  - Immobilized, measured, collected, and collared predators.
- US Yaks, Colorado & Nebraska, October 2018 - November 2019
  - Collected, evaluated, and cryopreserved captive yak semen.
- Save the Giraffes Foundation, South Africa, November 2018
  - Immobilized, measured, collected, and de-collared giraffes.

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### Professional Activities and Memberships

- Association of Zoos and Aquariums, Professional Associate, 2023-Present
- Gamma Sigma Delta, The Honor Society of Agriculture, Member, 2021-Present
- American Society of Animal Science, Member, 2020-Present
- UNL Animal Science Graduate Student Association, Member, 2018-2022

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### Professional Development

- AVMA Animal Welfare Assessment Contest, 2023 & 2024
  - ExoticsCon, 2021
  - American Society of Animal Science National Meeting, 2021
  - International Congress of Conservation Biology, 2019
  - The North American Congress for Conservation Biology, 2018
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## Certifications

- Sensory Inclusive Training, KultureCity, 2022
  - Radiation Safety Basic Training, Environmental Health and Safety, 2020 & 2022
  - Lab Safety Core Training, Environmental Health and Safety, 2020
  - IRB Human Subjects Training, Collaborative Institutional Training Initiative, 2020
  - IACUC General Regulation Training, Collaborative Institutional Training Initiative, 2018
  - First Aid/CPR/AED Training, American Red Cross, 2012 & 2018
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## Academic Writing/Achievements

### Peer-reviewed Research & Proceedings Publications

- Beer, Haley N**, Lacey TA, Gibbs RL, Most MS, Hicks ZM, Grijalva PC, Marks-Nelson ES, Schmidt TB, Petersen JL, Yates DT. 2024. A Daily Eicosapentaenoic Acid Infusion in IUGR Fetal Lambs Reduced Systemic Inflammation, Increased Muscle ADR $\beta$ 2 Content, & Improved Myoblast Function & Muscle Growth. *Metabolites*, 14(340), doi.org/10.3390/metabo14060340.
- Beer, Haley N**, Yates DT, Shrader TC, Schmidt TB. 2024. Continuous video monitoring of zoo cheetahs demonstrates differential engagement patterns for six different types of environmental enrichment. *Journal of Zoological and Botanical Gardens*. (Accepted). doi.org/10.3390/jzbgxxxxxxx.
- Beer, Haley N**, Karr LK, Shrader TC, Yates DT. 2023. Allostatic Load Index Effectively Measures Chronic Stress Status in Zoo-Housed Giraffes. *Journal of Zoological and Botanical Gardens*, 4(3): 623-636, doi.org/10.3390/jzbg4030044.
- Beer, Haley N**, Shrader TC, Schmidt TB, Yates DT. 2023. The Evolution of Zoos as Conservation Institutions: A Summary of the Transition from Menageries to Zoological Gardens and Parallel Improvement of Mammalian Welfare Management. *Journal of Zoological and Botanical Gardens*, 4(4): 648-664, doi.org/10.3390/jzbg4040046.
- Beer, Haley N**, Pachunka A, Karr LK. 2024. 4-H Small Animal Exhibition Promotes the Human-Animal Bond, Increases Confidence, and Teaches Proper Animal Care in Youth. *Journal of Extension*. (Accepted).
- Beer, Haley N**, Winkel S, Karr LK. 2024. Mentorship and Research: Key Drivers of Skill, Knowledge, and Career Development for Animal Science Undergraduates. *NACTA Journal*. (Submitted).
- Beer, Haley N**, Winkel S, Karr LK. 2024. Assessment of Undergraduate Student Learning in an Animal Science Major. *NACTA Journal*. (Submitted).
- Gibbs RL, **Beer, Haley N**, Lacey TA, White MR, Hicks ZM, Grijalva PC, Petersen JL, Schmidt TB, Yates DT. 2023. Impaired Myoblast Function and Poor Muscle Growth in Intrauterine Growth-Restricted Fetal Sheep Is Improved By the Anti-Inflammatory Nutraceutical, Eicosapentaenoic Acid. *Journal of Animal Science*, 101(Supplement\_3): 163-164, doi.org/10.1093/jas/skad281.199.
- Hicks ZM, **Beer, Haley N**, Gibbs RL, White MR, Lacey TA, Grijalva PC, Most MS, Schmidt TB, Petersen JL, Yates DT. 2023. Prolonged Maternofetal Inflammation in the Pregnant Ewe at Mid-Gestation Increases Subsequent Fetal Inflammatory Tone and Disrupts Skeletal Muscle Growth and Glucose Metabolism Near Term. *Journal of Animal Science*, 101(Supplement\_3): 166-167, doi.org/10.1093/jas/skad281.199.
- Grijalva PC, Most MS, **Beer, Haley N**, Gibbs RL, Hicks ZM, Lacey TA, White MR, Schmidt TB, Petersen JL, Yates DT. 2023. Fish Oil and Dexamethasone Administration Each Partially Improve Indicators of Glucose Metabolism and Fat Homeostasis By Reducing Systemic Inflammation in Heat-Stressed Feedlot Wethers. *Journal of Animal Science*, 101(Supplement\_3): 165-166,

doi.org/10.1093/jas/skad281.199.

- White MR, Gibbs RL, Grijalva PC, Hicks ZM, **Beer, Haley N**, Most MS, Schmidt TB, Petersen JL, Yates DT. 2023. Increased Inflammatory Tone and Impaired Skeletal Muscle Growth in Intrauterine Growth-Restricted Neonatal Lambs Is Improved By Daily Supplementation of  $\omega$ -3 Polyunsaturated Fatty Acid Ca<sup>2+</sup> Salts. *Journal of Animal Science*, 101(Supplement\_3): 164-165, doi.org/10.1093/jas/skad281.200.
- White MR, Gibbs RL, Grijalva PC, Hicks ZM, **Beer, Haley N**, Most MS, Schmidt TB, Petersen JL, Yates DT. 2023. Impaired Glucose-Stimulated Insulin Secretion in Intrauterine Growth-Restricted Neonatal Lambs Is Improved By Daily Supplementation of  $\omega$ -3 Polyunsaturated Fatty Acid Ca<sup>2+</sup> Salts. *Journal of Animal Science*, 101(Supplement\_3): 488-489, doi.org/10.1093/jas/skad281.579.
- Gibbs RL, Swanson RM, Beard JK, Hicks ZM, Most MS, **Beer, Haley N**, Grijalva, PC, Clement SM, Marks-Nelson ES, Schmidt TB, Petersen JL, Yates DT. 2023. Daily injection of the  $\beta$ 2 adrenergic agonist clenbuterol improved poor muscle growth and body composition in lambs following heat stress-induced intrauterine growth restriction. *Frontiers*, 14, doi.org/10.3389/fphys.2023.1252508.
- Beer, Haley N**, Lacey TA, Gibbs RL, Most MS, Hicks ZM, Grijalva PC, Petersen JL, Yates DT. 2021. Placental insufficiency improves when intrauterine growth-restricted fetal sheep are administered daily  $\omega$ -3 polyunsaturated fatty acid infusions. *Translational Animal Science*, 5(Supplement\_S1): S6-S10, doi.org/10.1093/tas/txab166.
- Hicks ZM, **Beer, Haley N**, Lacey TA, Gibbs RL, Most MS, Grijalva PC, Petersen JL, Yates DT. 2021. Hindlimb tissue composition shifts between the fetal and juvenile stages in the lamb. *Translational Animal Science*, 5(Supplement\_S1): S38-S40, doi.org/10.1093/tas/txab164.
- Most MS, Grijalva PC, **Beer, Haley N**, Gibbs RL, Hicks ZM, Lacey TA, Schmidt TB, Petersen JL, Yates DT. 2021. Dexamethasone and fish oil improve average daily gain but not muscle mass or protein content in feedlot wethers after chronic heat stress. *Translational Animal Science*, 5(Supplement\_S1): S46-S50, doi.org/10.1093/tas/txab163.
- Lacey TA, Gibbs RL, Most MS, **Beer, Haley N**, Hicks ZM, Grijalva PC, Petersen JL, Yates DT. 2021. Decreased fetal biometrics and impaired  $\beta$ cell function in IUGR fetal sheep are improved by daily  $\omega$ -3 PUFA infusion. *Translational Animal Science*, 5(Supplement\_S1): S41-S45, doi.org/10.1093/tas/txab168.
- Grijalva PC, Most MS, Gibbs RL, **Beer, Haley N**, Hicks ZM, Lacey TA, Schmidt TB, Petersen JL, Yates DT. 2021. Fish oil and dexamethasone administration partially mitigates heat stress-induced changes in circulating leukocytes and metabolic indicators in feedlot wethers. *Translational Animal Science*, 5(Supplement\_S1): S30-S33, doi.org/10.1093/tas/txab167

### Abstract Publications

- Gibbs RL, **Beer, Haley N**, Lacey TL, Yates DT. 2023. Intrinsic myoblast dysfunction and poor muscle growth in intrauterine growth-restricted fetal sheep is improved by the anti-inflammatory nutraceutical, eicosapentaenoic acid. *Journal of Animal Science*.
- White MR, Gibbs RL, Grijalva PC, Hicks ZM, **Beer, Haley N**, Most MS, Schmidt TB, Petersen JL, Yates DT. 2023. Increased inflammatory tone and impaired skeletal muscle growth in intrauterine growth-restricted neonatal lambs is improved by daily supplementation of  $\omega$ -3 polyunsaturated fatty acid Ca<sup>2+</sup> salts. *Journal of Animal Science*.
- Grijalva PC, Most MS, Gibbs RL, **Beer, Haley N**, Hicks ZM, Lacey TL, Petersen JL, Schmidt TB, Yates DT. 2022 Administering anti-inflammatory dexamethasone or fish oil mitigated components of the inflammatory response to chronic heat stress and improved average daily gain in wether lambs. *Journal of Animal Science*.

### Projects in Progress

- Beer, Haley N**, Stoops MA, Yates, DT. Assessment of black rhino courtship patterns in national zoos.

2024.

**Beer, Haley N.,** Krebs J, Twedt M, Yates, DT. Evaluation of rattlesnake behavior with transparent boundaries in a captive environment. 2024.

**Beer, Haley N.,** Wiktor, K, and Yates, DT. Nighttime utilization of enclosure space in zoo-housed sloth bears. 2024.

### Scholarships

- Cooksley Travel | 2021
- Shipboard Merit | 2016
- W.M. Goldner |2015
- Ph.D. Assistantship | 2020
- Global Gateway | 2015
- S.E.E.C.A. | 2015
- M.S. Assistantship | 2018
- S/M McKelvie | 2015
- Allegra Wilkens | 2014
- Cookley Travel | 2018
- Milton E. Mohr | 2015

### Personal Profile

#### Volunteer Work

- Heartland Avian Rescue Project  
Apr 2024 - Present
- Domesti-Pups  
Apr 2015 - Present
- Nebraska Game & Parks  
November 2016 - March 2017
- Bird Behavior Laboratory  
July 2015 - December 2016
- Parasitology Laboratory  
January 2012 - March 2015
- The Cat House  
November 2012 - August 2013
- Tabitha Health Care  
May 2013 - December 2013

#### Proficiency

- Literature review
- Scientific writing
- Presentation preparation
- Visual communication
- Strategic planning

#### Personal Skills

- Loyalty    Resourcefulness
- Empathy    Diligence
- Conflict Resolution    Creativity
- Organization    Positivity
- Collaboration    Perseverance

#### Teaching Portfolio

- Coursework, Clubs, & Events



#### Media Coverage

- [American Scientist](#)
- [Nebraska Today](#)
- [Daily Nebraskan](#)