

VICTORIA M. NEISES

Ph.D.

Animal Physiologist

EDUCATION

- Baylor University** 2022
Doctor of Philosophy in Biology
Dissertation: Fatty acid signature analysis of Steller sea lions and harbor seals in Alaska, 1997-2010
Committee: Stephen Trumble (advisor), Ryan King, Sasha Usenko, Cheolho Sim, Darryl Willoughby, Mandy Keogh
- Alaska Pacific University** 2013
Master of Science in Environmental Science
Dissertation: Behavioral and metabolic responses to simulated reduction in prey availability: implications for physiological plasticity in pinnipeds
Committee: Leslie Cornick (advisor), Brad Harris, Jennifer Zeligs
- San Diego State University** 2009
Bachelor of Science in Biology
Concentrations: Marine Ecology, Biochemistry
Minor: Personality and Social Psychology

RESEARCH AND PROFESSIONAL EXPERIENCE

- Lead Investigator**, Baylor University 2014 – 2022
Department of Biology
Blubber Fatty Acid Signature Analysis of Harbor Seals and Steller Sea Lions
Collaboration, Alaska Department of Fish and Game
- Science Assistant**, National Science Foundation 2013 – 2014
Biology Directorate, Division of Integrative Organismal Systems
- Lead Investigator**, Alaska Pacific University 2010 – 2013
Department of Environmental Science
Foraging Energetics of California sea lions
Collaboration, Moss Landing Marine Laboratories
- Research Assistant**, Alaska Pacific University Fall 2012
Department of Environmental Science
Scallop Mortality in the Cook Inlet Scallop Fishery
Brad Harris, PhD, Principal Investigator

Collaboration, Alaska Department of Fish and Game

Field Technician, Alaska Pacific University Fall 2012
Department of Environmental Science
Brad Harris, PhD, Principal Investigator
Estimation of Chinook Salmon Distribution and Juvenile Overwintering
Habitat in Meadow Creek
Collaboration, Alaska Department of Fish and Game

Field Technician, Alaska Pacific University Fall 2012
Department of Environmental Science
Brad Harris, PhD, Principal Investigator
Investigation of relationships between size-at-age and diet composition
of Pacific halibut (*Hippoglossus stenolepis*) from the Homer, Alaska, sport
fishery

Cell Biologist, ScienCell Research Laboratories Aug 2009 – Jul 2010
Quality Control and Assurance Supervisor

Animal Care Intern, US Navy Marine Mammal Program 2007

Research Assistant, San Diego State University 2007
Department of Biology
Levi Lewis, Principal Investigator
Todd Anderson, PhD, Advisor
Predation of fishes and trophic ecology in eelgrass beds

PUBLICATIONS

Neises VM, Karpovich SA, Keogh MJ, and Trumble SJ. 2022. Examination of blubber fatty acids in pregnant and lactating Alaskan harbor seals (*Phoca vitulina*). *Aquatic Mammals Journal*, 48(4), 362-379. Doi: 10.1578/AM.48.4.2022.362

Neises VM, Karpovich SA, Keogh MJ, King RS, Trumble SJ. 2021. Regional, seasonal and age class blubber fatty acid signature analysis of harbour seals in Alaska from 1997 to 2010. *Conservation Physiology*, 9(1): coab036. Doi:10.1093/conphys/coab036

Neises V, Zeligs J, Harris B, and Cornick L. 2017. Examining the metabolic cost of otariid foraging under varying conditions. *Journal of Experimental Marine Biology and Ecology*, 486, 352-357. Doi:10.1016/j.jembe.2016.11.001

Norrell V. 2013. Behavioral and metabolic responses to simulated reduction in prey availability: implications for physiological plasticity in pinnipeds. Thesis, Alaska Pacific University, Anchorage, AK.

Publications in Preparation

Neises VM, Kirkpatrick A, Willoughby D, Norman S, Rice J, Huggins J, Souza V, Olson J, Dubpernell S, Berta S, Trumble SJ. Bone mineral density using dual energy Xray absorptiometry: A potential new technique for aging stranded marine mammals. *Expected in review Summer 2022*

Neises VM, Karpovich SA, Keogh MJ, and Trumble SJ. Comparison of blubber fatty acid signatures of yearling and juvenile Alaskan harbor seals and Steller sea lions in Prince William Sound and Southeast from 2000-2004. *Expected in review Fall 2022*

Kirkpatrick A, **Neises VM**, Young V, Drews E, Castellini M, Trumble SJ. Fecal glucocorticoid response to diet mixing and feeding frequency in a central place forager, the harbor seal. *Expected in review Fall 2022*

DATA ANALYSIS SKILLS

R Statistical software	Principal component analysis, Linear discriminant analysis, Random forest analysis, Non-metric multidimensional scaling, General linear modeling, General additive modeling, PERMANOVA, ANOVA, MANOVA
SPSS	ANOVA, MANOVA, Regression, Descriptive and exploratory statistics
ArcGIS, QGIS	Spatial mapping, spatial statistics, integration with R
Excel	Pivot tables, Descriptive stats, Histogram, F-test, t-test, ANOVA
Python	Data cleanup and standardization of large data sets, file manipulation
Sabel Systems Expedata software	Macro code development
AverMedia Vision AP software	Scallop shell image capture

FIELDWORK SKILLS

Sable Systems TurboFox 500 Respirometer	Metabolic measurements (O ₂ , CO ₂)
Fish capture, identification, age, sex, length sampling	Health assessment
Fish pit tagging	Mark and recapture
Fish otolith extraction	Age determination

LABORATORY SKILLS

Cell culturing	gDNA extraction	tRNA extraction
Lysate extraction	PCR	Immunostaining
Gel electrophoresis	SDS page analysis	

PROFESSIONAL DEVELOPMENT

Certificate , <i>An Introduction to Basic Statistics For Biologists Using R</i> GIS in Ecology, Instructor: Colin MacLeod	November 2020
Certificate , <i>An Introduction to Integrating QGIS/GIS and R for Spatial Analysis</i> GIS in Ecology, Instructor: Colin MacLeod	October 2020
Capstone , <i>Teaching Capstone in Higher Education</i> (TeaCHE) Baylor University	May 2019
Departmental Course , <i>Teaching and Learning in Higher Education</i> Baylor University	Spring 2016

Planned Future Development

Certificate , <i>An Introduction to Species Distribution Modeling in the Marine Environment</i> , GIS in Ecology	Sept 2022
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CONFERENCE PRESENTATIONS

Neises V, Karpovich S, Keogh M, King R, and S Trumble. Regional blubber fatty acid signature analysis of harbor seals in Alaska from 1997-2010. *Alaska Marine Science Symposium*, Anchorage, Alaska, Virtual, January 2021. (oral)

Neises V, Karpovich S, Keogh M, King R, and S Trumble. Regional blubber fatty acid signature analysis of harbor seals in Alaska from 1997-2010. *World Marine Mammal Conference*, Barcelona, Spain, December 2019. (poster)

Neises V, King R, Keogh M, Karpovich S, and S. Trumble. Fatty acid signature analysis of harbor seals in Alaska, 1997-2010. *Alaska Marine Science Symposium*, Anchorage, Alaska, January 2019. (poster)

Neises V, Keogh M, Rea L, and S Trumble. Fatty acid analysis of Steller sea lion and harbor seals in Alaska, 1997-2010. *22nd Biennial Conference on the Biology of Marine Mammals*, Halifax, Nova Scotia, Canada, October 2017. (poster)

Norrell V, Harris B, Zeligs J and Cornick LA. Breath by breath: examining the metabolic cost to otariid foraging behavior. *20th Biennial Conference on the Biology of Marine Mammals*, Dunedin, New Zealand, December 2013. (poster)

Norrell V and Cornick LA. Behavioral and metabolic responses to simulated reduction in prey availability: implications for physiological plasticity in pinnipeds. *Alaska Marine Science Symposium*, Anchorage, Alaska, January 2013. (poster)

Norrell V and Cornick LA. Determining a metabolic cost to pinnipeds foraging behavior. *Alaska Space Grant / NASA EPSCoR Symposium*, Fairbanks, Alaska, May 2012. (poster)

INVITED LECTURES AND SEMINARS

Substitute Lecturer, Modern Concepts of Bioscience Baylor University, BIO1302 Honors	February 2016
Breath by breath: the metabolic cost of otariid foraging under varying conditions Alaska Pacific University	March 2013
Determining a metabolic cost to pinniped foraging behavior Alaska Pacific University	November 2012

AWARDS AND HONORS

Best Oral Presentation , CEGSS Symposium Baylor University	Spring 2019
Nominee , Outstanding Graduate Student Instructor Award Baylor University	Spring 2016

RESEARCH AWARDS AND GRANTS

C. Gus Glasscock, Jr. Endowed Fund of Excellence in Environmental Science Baylor University, \$2,575	2016
At-sea Processors Association Pollock Conservation Cooperative Research Center Grant, \$7,500 Alaska Pacific University	2011-2012
Alaska Space Grant Higher Education Grant, \$5,000 Alaska Pacific University	2011-2012

ACADEMIC AND COMMUNITY SERVICE

Founding Leadership , CMHD and EEO Graduate Student Society (CEGSS) Workshop Chair Baylor University	2018 -2019
Member , CMHD and EEO Graduate Student Society Baylor University	Spring 2018 – Spring 2022
Organizer , Present Your PhD Baylor University	Fall 2017 – Spring 2022
Student Representative , Graduate Student Association Baylor University	2015 - 2016

PROFESSIONAL ASSOCIATIONS

Member, Society for Marine Mammalogy	2008 - present
Member, Society for Conservation Biology	2011 - present
Member, Graduate Women in Science	2015 - present

TEACHING EXPERIENCE

Senior Laboratory Instructor , Human Anatomy and Physiology I Baylor University, BIO2401	2015-2020
Senior Laboratory Instructor , Human Anatomy and Physiology II Baylor University, BIO2402	2014-2020
Laboratory Instructor , Modern Concepts of Bioscience CILICURE Baylor University, BIO1105	Fall 2017
Co-Instructor , Teaching and Learning in Higher Education Baylor University, BIO6302	Fall 2016
Substitute Lecturer , Modern Concepts of Bioscience Baylor University, BIO1302 Honors	February 2016
Laboratory Instructor , Modern Concepts of Bioscience Baylor University, BIO1105	Fall 2014
Laboratory Instructor , Ecology Alaska Pacific University	Fall 2012