## Alejandro Acevedo-Gutiérrez: CURRICULUM VITAE

Department of Biology, Western Washington University, Bellingham, WA 98225-9160 (360) 650-3653, aceveda@wwu.edu; https://faculty.aceveda.wwu.edu

## **EDUCATION**

Postgraduate Researcher, University of California Santa Cruz. 1998-2001.

Ph.D., Wildlife & Fisheries Sciences, Texas A&M University. 1997.

Biól. Mar., Universidad Autónoma de Baja California Sur, México. (B.Sc. Mar. Biol.). 1989.

## **APPOINTMENTS**

Professor in Biology and Science Education, Western Washington University. 2013-present.

Research Associate, University of California Santa Cruz. 2001-present.

Associate Professor in Biology and Science Education, Western Washington University. 2007-2013.

Assistant Professor in Biology and Science Education, Western Washington University. 2002-2007.

Senior Aquatic Educator & Research Associate, California Academy of Sciences. 2001-2002.

Associate Faculty, School for Field Studies. 1989.

# SELECTED HONORS AND AWARDS

- 2019 Arlan Norman Award for Excellence in Student Mentoring, Western Washington University.
- 2014 Teaching-Learning Academy Award, Western Washington University.
- 2013 Teaching-Learning Academy Award, Western Washington University.
- 2009 Special Merit Award, Western Washington University.
- 2007 Featured Scientist, Center for Talented Youth, Johns Hopkins University.
- 2005 Featured Scientist, Houghton-Mifflin Science, California Edition for Elementary School Children.
- 2005 Science Spectrum Trailblazer, Top Minority in Science, CAREER Communications Group.
- 2002 Award for Excellence in Research, State of Baia California Sur and City of La Paz, México.
- 2001 MOSI's National Hispanic Scientist of the Year, USA.
- 2001 Key to the City of Tampa and Dr. Alejandro Acevedo-Gutiérrez, National Hispanic Scientist of the Year Day, October 20<sup>th</sup>, 2001, Tampa, USA.

# **TEACHING**

## COURSES- WESTERN WASHINGTON UNIVERSITY Quarter taught (number of students)

BIOL101- Introduction to Biology. Spring 2003 (125).

BIOL195- Introduction to Marine Biology. Fall 2019 (18).

BIOL204- Introduction to Evolution, Ecology and Biodiversity.

Winter 2003 (204), 2005 (92), 2006 (55), 2007 (69), 2008 (58), 2010 (68).

BIOL206- Introduction to Organismal Biology.

Winter 2004 (61): Fall 2005 (66): Summer 2006 (14):

Spring 2008 (99), 2012 (96), 2013 (96), 2014 (96), 2015 (92), 2017 (91), 2018 (94), 2019 (90), 2021 online (94), 2024 (72).

BIOL400-*Introduction to Tropical Marine Biological Research*. w/D. Donovan, B. Miner. Spring 2010 (16), 2012 (16), 2014 (14), 2016 (16), 2018 (17).

BIOL437- Tropical Marine Biological Research. w/D. Donovan, B. Miner, S. Flores.

Summer 2010 (21), 2012 (23), 2014 (17), 2016 (22), 2018 (22).

BIOL464- Biology of Marine Mammals.

WP3 Fall 2003 (22), 2004 (22), 2006 (22)

Fall 2009 (21), 2011 (23), 2013 (24), 2016 (24). 2018 (24), 2019 (23), 2020 online (24), 2021 (24), 2023 (24).

BIOL521- Introduction to Biology Research.

Fall 2004 (7), 2005 (3), 2006 (9), 2009 (8), 2016 (12), 2019 (11); Winter 2005 (5).

BIOL522- Research Proposal Development and Writing. Winter 2020 (9), 2022 (15).

BIOL523- Research Presentation. Winter-Spring 2011 (14), 2013 (16), 2015 (18), 2018 (18).

BIOL599- Seminar in Marine Conservation Biology. Winter 2004 (8).

BIOL599- Seminar in Bioethics. Fall 2007 (4).

CSCE122- Understanding Scientific Research: Winter 2004 (16).

SCED203- Matter and Energy in Life Systems.

Spring 2006 (27), 2007 (19), 2013 (17), 2014 (17), 2015 (19) 2018 (3), 2020 online (6), 2021 online (12), 2022 (15); Fall 2007 (10), 2009 (17), 2016 (23), 2018 (19), 2019 (13), 2020 online (16), 2023 (16); Winter 2018 (14), 2023.

SCED370- Science and Society. Fall 2010 (21), 2011 (18), 2012 (16).

SCED480- Science Methods and Curriculum for the Elementary School.

Fall 2002 (27); Sept. 2004 (19); Winter 2010 (23), 2020 (21).

SCED490- Laboratory/Field Experience in Elementary Science.

Fall 2003 (24), 2013 (22), 2014 (16); Winter 2012 (23), 2013 (21), 2014 (21), 2015 (21), 2017 (29); Spring 2003 (21), 2010 (20), 2011 (20), 2012 (16), 2017 (25)

Spring 2003 (21), 2010 (20), 2011 (20), 2012 (16), 2017 (25).

SCED492- Teaching Science for the Secondary School. Winter/Spring 2004 (1).

SCED517- Communicating Science: Creating a Scientifically Literate Society. w/A. Boudreaux. Fall 2007 (18), Winter 2008 (5).

#### **Service Learning Courses:**

BIOL445E- Marine Conservation Biology. Spring 2004 (11).

#### **Courses that I Shadowed:**

SCED201- Matter and Energy in Physical Systems. Fall 2021 hybrid (24).

SCED480- Science Methods and Curriculum for the Elementary School. Winter 2019 (24), 2022 (23).

#### **TEACHING MATERIALS**

<u>Acevedo-Gutiérrez, A.</u>, Borda, E., DeBari, S., Donovan, D. & Linneman, S. 2016. A Learning Cycle Approach to Guided Inquiry in a Four-Course Interdisciplinary Science Series. *Innovative Teaching Showcase* 2015-16 (17), Western Washington University. Bellingham, WA. (Co-developed one of the courses, reviewed and edited publication.)

<u>Department of Biology.</u> 2015. Biology 206: Introduction to Organismal Biology Laboratory Manual. Hayden-McNeil Publishing, Plymouth, MI. (Led and supervised effort, developed activities, collected information, reviewed and edited manual.)

Donovan, D., Rouseau, J., Salter, I., Atkins, L., <u>Acevedo-Gutiérrez, A.</u>, Landel, C., Mullen, V., Pap-Lindstrom, P. & Kratz, R. 2014. Life Science & Everyday Thinking. It's About Time, Mount Kisco, NY. (Developed chapters, collected information, reviewed and edited manual.)

# **DIRECTED WWU MSc STUDENTS (BIOL690)** with selected students' accomplishments

21 students (average stay:  $29.3 \pm SD$  12.3 months).

Eighteen peer-reviewed papers by 14 students.

Twenty-four presentations by 14 students at professional conferences.

Fifty-three presentations by 21 students at student meetings.

#### Victoria Vinecke (2022-present).

Individual haplotyping of harbor seals from eDNA. Co-advised with Dr. Dietmar Schwarz.

Awards: 2024- Biology Outstanding Graduate Teaching Assistant.

Alexandrea Otto (2022-present).

Population structure of harbor seals in the Salish Sea. Co-advised with Dr. Dietmar Schwarz.

Awards: 2024- Marine and Estuarine Science Program Outstanding Graduate Student.

Kathleen McKeegan (2020-2022). Current: Biologist, Skagit River System Cooperative.

Effect of TAST device on the foraging success of individual harbor seals.

Awards: 2021- Graduate Student Research Award, North Pacific Research Board.

Publication: Scientific Reports 14: 3719.

Zoë Lewis (2020-2022). Current: Fisheries Biologist, Lummi Nation.

Describing Steller sea lion diet along Washington coast. Co-advised with Dr. Dietmar Schwarz.

Publications: 2023- Northwestern Naturalist 104: 253-263.

2024- Conservation Genetics Resources.

Bobbie Buzzell (2019-2021). Current: Grants Manager, Lummi Natural Resources Department.

River otter consumption of invasive European green crab in Makah Bay, Washington State.

Awards: 2021- Outstanding Graduate Teaching Assistant Award.

Publication: Fishery Bulletin (2023).

Grace Freeman (2019-2021). Current: Senior Data Analyst, Education Analytics.

Individual variability in site visitation and foraging success of harbor seals in the Salish Sea.

Awards: 2020- Washington Sea Grant Science Communications Fellowship.

Publication: 2022- Scientific Reports 12: 11184.

Nathaniel Guilford (2018-2020). Current: Remote Tech Support, Complete Genomics.

Non-invasive individual genotyping in the harbor seal. Co-advised with Dr. Dietmar Schwarz.

Jonathan Blubaugh (2018-2020). Current: Statistician, Georgia Department of Agriculture.

Impacts of mixed trophic interactions in Puget Sound. Co-advised with Dr. Dietmar Schwarz.

Madelyn Voelker (2016-2018). Current: Program Coordinator, Ocean Research College Academy.

Diet heterogeneity of harbor seals in the Salish Sea. Co-advised with Dr. Dietmar Schwarz.

Publications: 2020- Ecology and Evolution 10: 9867-9885.

2021- Canadian Journal of Fisheries and Aquatic Sciences 78: 1661-1676.

Adrianne Akmajian (2014-2016). Current: Marine Ecologist, Makah Tribe.

Year-round algal toxin exposure in free-ranging sea lions.

Publication: 2017- Marine Ecology Progress Series 583: 243-258.

Kat Nikolich (2013-2015). Current: Teacher, Valleyview Centennial School, Canada.

Breeding calls of male harbor seals relative to ambient noise.

Publications: 2018- Canadian Journal of Zoology 96: 1236-1243.

2016- Journal of the Acoustical Society of America 140: 1300-1308.

Dr. Andrew Rothstein (2012-2015). Current: Computational Biologist, Concentric by Gingko Bioworks.

(PhD from University of California Berkeley.)

Non-invasive genetic sampling in pinnipeds. Co-advised with Dr. Dietmar Schwarz.

Publication: 2017- Molecular Ecology Resources 17: 267-277.

Dr. Erin D'Agnese (2012-2015). Current: Owner, Wild Ecohealth LLC.

(PhD from University of California Davis.)

The effect of maternal traits on rearing success in harbor seals.

Jennifer Olson (2011-2013). Current: Oceanography Faculty, Ocean Research College Academy.

The effect of human exposure on the anti-predatory response of harbor seals (Phoca vitulina).

Publication: 2017- Aquatic Mammals 43: 673-681.

Dr. Austen Thomas (2008-2010). Current: Research Scientist, Smith-Root.

(PhD from University of British Columbia.)

Selective foraging by harbor seals: the importance of herring spawning and holding aggregations.

Awards: 2011- Graduate Research Award, Department of Biology, WWU.

Publication: 2011- Marine Ecology Progress Series 441: 225-239.

Sasha Ertl (McFarland) (2007-2013). Current: Biologist, Grette Associates.

Influence of sex and body mass on harbor seal diving behavior.

Sarah Howard (2007-2009). Current: Biologist, National Park Service.

Energy use and prey consumption of harbor seals in the San Juan Islands, WA.

Publication: 2013- Fishery Bulletin 111: 27-41.

Dr. Kenady Wilson (Reuland) (2006-2008). Current: Research Scientist, Wildlife Computers.

(PhD from Duke University.)

Seasonal variation in the foraging behavior of harbor seals in the Georgia Basin.

Publication: 2014- PLoS ONE 9: e92838.

Dr. Sarah Peterson (Hardee) (2006-2008). Current: Wildlife Biologist, U.S. Geological Survey.

(PhD from University of California Santa Cruz.)

Movements and home ranges of harbor seals in the inland waters of the Pacific Northwest.

Publication: 2012-PLoS ONE 7: e39046.

Presentation: 2008- Outstanding Student Award, American Society of Limnology and Oceanography.

Katie Luxa (2004-2008). Current: Biologist, National Marine Mammal Laboratory.

Response of harbor seals to changes in prey abundance in Padilla Bay, Washington.

Publication: 2013- Aquatic Mammals 39: 10-22.

Adria Banks (2003-2007). Current: Quantitative Analyst, Ecotope.

Harbor seal abundance and habitat use relative to candidate marine reserves in Skagit Co., WA.

Awards: 2004-2007- NSF Graduate Research Fellowship.

## MENTORED UNDERGRADUATES (BIOL 400) with selected students' accomplishments

49 students (average stay:  $14.6 \pm SD 7.0$  months).

Fourteen peer-reviewed papers by 16 students.

Eleven presentations by 11 students at professional conferences.

Seventy-nine presentations by 42 students at student meetings.

#### Ellie Taylor (2024-present).

Harbor seal haul out numbers in downtown Bellingham.

#### Rachel Strober (2024-present).

Harbor seal foraging at Whatcom Creek.

Jack Mezzone (2024). Current: recent graduate.

Harbor seal foraging at Whatcom Creek.

#### Maren Duffy (2024-present).

Variation in sex ratio at harbor seal haul-out sites. Co-advised with Dr. Dietmar Schwarz.

Awards: 2024- Hallson Scholarship Summer Undergraduate Research Program.

#### Haley Recob (2024-present).

Variation in sex ratio at harbor seal haul-out sites. Co-advised with Dr. Dietmar Schwarz.

Awards: 2024- NASA Space Grant Summer Research Award.

Olivia Balaban (2024). Current: recent graduate.

Impacts of mixed trophic interactions in Puget Sound. Co-advised with Dr. Dietmar Schwarz.

**Isabel Shier** (2023-2024). Current: recent graduate.

mtDNA variation in harbor seals Washingtion State. Co-advised with Dr. Dietmar Schwarz.

**Maya Mijares** (2023-2024). Current: Marine Science instructor, Catalina Island Marine Institute. *mtDNA variation in harbor seals Washingtion State*. Co-advised with Dr. Dietmar Schwarz.

Kameran Rodriguez (2023). Current: recent graduate.

Social foraging in harbor seals.

Jasper McCutcheon (2023-2024). Current: recent graduate.

Development impacts on behavior of harbor seals.

Brianna Hull (2023). Current: Port Sampling, Washington Department of Fish and Wildlife.

Foraging ecology of harbor seals in Whatcom Creek, Bellingham, WA.

Madison Gard (2022-2023). Current: MSc student, University of Washington.

Release of hatchery salmon smolt and aggregative behavior of harbor seals.

Genotyping of Steller sea lions. Co-advised with Dr. D. Schwarz

Awards: 2023- Outstanding Graduation Senior and Commencement Speaker, Department of

Environmental Science, WWU.

Publication: 2024- Conservation Genetics Resources.

Holland Conwell (2021-2023). Current: Lab Technician, University of California Santa Cruz.

Development impacts on haul-out behavior of harbor seals. Co-advised with Dr. Dietmar Schwarz.

Diet of male and female harbor seals in the Salish Sea. Co-advised with Dr. D. Schwarz

Awards: 2022- Hallson Scholarship Summer Undergraduate Research Program.

Publication: 2024- Ecology and Evolution.

Kate Clayton (2020-2022). Current: Recent graduate.

Effect of an acoustic deterrent device on the foraging success of individual harbor seals.

Awards: 2021- NASA Space Grant Summer Research Award.

Publication: Scientific Reports 14: 3719.

Kyra Bankhead (2020-2022). Current: MSc student, Oregon State University.

Potential impact of anthropogenic noise on harbor seal hauled-out numbers.

Awards: 2021- Seattle Association for Women in Science Scholarship.

Publication: 2023- Canadian Journal of Zoology 101: 720-728.

Delaney Adams (2019-2020). Current: Fisheries Biologist, Lummi Nation.

Do harbor seals hunt cooperatively?

Awards: 2018- Ernest F. Hollings Undergraduate Scholarship, NOAA.

Presentation: 2020- Seminar Honors, WWU (online).

Funds secured by student: \$30,600 (external).

Helen Krueger (2019-2020). Current: Scientific Technician, Washington Department of Fish and Wildlife.

Microbial community associated with a harbor seal haul-out site.

Presentation: 2020- Scholars' Week WWU (online).

Madison McKay (2018-2019). Current: MSc student, Moss Landing Marine Laboratories.

Sports fishing impact on hunting success of harbor seals.

Presentation: 2019- 23<sup>rd</sup> Meeting of the Society for Marine Mammalogy NW Student Chapter.

Wyatt Heimbichner Goebel (2018-2019). Current: MSc student, Western Washington University.

Numbers of harbor seals relative to ambient noise.

Publication: 2023- Canadian Journal of Zoology 101: 720-728.

Alisa Aist (2017-2019). Current: Fishery Biologist, Alaska Department of Fish and Game.

Human attitudes towards harbor seals in Bellingham, WA.

McKenna Pezzi (Newmarch) (2017-2018). After graduation: Res. Assoc., NY Univ. Langone Health.

Factors influencing hunting success in harbor seals.

MSc Rachel Wachtendonk (2016-2017). Current: Analyst, Ocean Associates Inc.

(MSc from Universidade do Algarve.)

Are there rogue seals in Whatcom Creek, Bellingham, WA?

Raven Benko (2016-2017). Current: MSc student, University of Washington.

Habituation by harbor seals to construction disturbance in downtown Bellingham, WA.

Daniel Woodrich (2015-2016). After graduation: Protected Species Observer, NW Environ. Consulting.

Effects of environmental variables on harbor seal occurrence at a seasonal foraging site.

Presentation: 2016- Outstanding Award, Scholars' Week, WWU.

**Nicholas Wesen** (2015). Current: Veterinary Student, Washington State University. *Seasonal variation of harbor seal occurrence in Bellingham.* 

Sara Spitzer (2014-2015). Current: Research Technician, TwinStrand Biosciences.

Sex differences in diet of harbor seals through genetic analysis of scat. Co-advised with Dr. D. Schwarz Publication: 2018- Ecology & Evolution 8: 9889-9905.

Presentation: 2015- Outstanding Award, Scholars' Week, WWU.

**Erin Matthews** (2014-2015). Current: Fish Passage Coordinator 4, Washington Dept. of Transportation. *Aggregate response of harbor seals to adult salmonid runs and the occurrence of 'rogue' individuals*. Publication: 2022- Scientific Reports 12: 11184.

**MSc Ashlyn Teather** (2014-2015). Current: Environmental Education Coordinator, Duke University. (MSc from University of Minnesota Duluth.)

Long-term effects of development on harbor seal numbers in downtown Bellingham, WA.

RN Robayo-Krause (2013-2014). Current: Registered Nurse, Providence St Peter Hospital.

(Nursing degree from University of Washington.)

Temporal variation in the aggregate response of harbor seals to chum salmon runs.

**MEd Nathan Moore** (2013-2014). Current: Graduate Research Fellow, University of Mississippi. (MEd from University of Mississippi.)

Seasonal variation of harbor seal numbers relative to human development in Bellingham, WA.

**Dr. Kelsey Moreno** (2012-2013). Current: Assistant Professor of Psychology, Saint Xavier University. (PhD from University of Southern Mississippi.)

Association patterns of bottlenose dolphins in Golfo Dulce, Costa Rica.

Publication: 2016- Royal Society Open Science 3: 160010.

**Erika Winner** (2012-2013). Current: MSc student, University of Minnesota Duluth. *Aggregate response of harbor seals to adult salmonid runs and the occurrence of 'rogue' individuals.* 

**Emily Mulnick Buckingham** (2012-2013). Current: Physician Assistant, Family Health Centers. *Seasonal variation of harbor seal occurrence in Bellingham.* 

**Dr. Kelly Cates** (2011-2012). Current: Fisheries Management Specialist, NOAA Fisheries Alaska. (PhD from University of Alaska Fairbanks.)

The behavioral response of harbor seals to boat traffic under different levels of exposure. Publication: 2017- Aquatic Mammals 43: 193-200.

MSc Bobbie Buzzell (2011-2012). Current: Fisheries Biologist, Lummi Nation.

(MSc from Western Washington University.)

Diet of coastal river otters (Lontra canadensis) in the San Juan Archipelago.

Publication: 2014- Aquatic Mammals 40: 150-161.

MES Erin Stehr (2011-2012). Current: Puget Sound Corps Team Lead, Wash. Dept. of Nat. Resources. (MES from Evergreen State College.)

Aggregate response of harbor seals to adult salmonid runs and the occurrence of 'rogue' individuals.

Awards: 2012- Outstanding Graduating Senior, Department of Biology, WWU.

Publication: 2022- Scientific Reports 12: 11184.

MSc Kelley van Hees (Andrews) (2010-2011). Current: Scientist, Exact Scientific Services, Inc. (MSc from Moss Landing Marine Laboratories.)

Diet of coastal river otters (Lontra canadensis) in the San Juan Archipelago.

MA Kevin Eyer (2008-2009). Current: Science Teacher, North Kitsap High School.

(MA from Miami University.)

Mapping of seal movements as an educational tool.

**Mandy Betz (Chomos)** (2008-2009). After graduation: Mar. Mamm. Biol., Point Defiance Zoo & Aquarium. *Home ranges of harbor seals from the San Juan Islands*.

MSc Chris Vennum (2008-2009). Current: PhD student, Colorado State University.

(MSc from University of Nevada Reno.)

Home ranges of harbor seals from the San Juan Islands.

Sara Cendejas-Zarelli (2008-2009). Current: Biologist, The Lower Elwha Klallam Tribe.

Nocturnal haul-out behavior of harbor seals in Bellingham, Washington.

Publication: 2011- Aquatic Mammals 37: 167-174.

MIT Lauren Grant (2007-2008). After graduation: Masters in Teaching from Seattle University.

Diet of coastal river otters (Lontra canadensis) in the San Juan Archipelago.

**Dr. Kenneth James Soda, Jr.** (2007). Current: Assistant Professor of Mathematics, Quinnipiac University. (PhD from Florida State University.)

Alcid and cormorant foraging behavior in Burrows Channel, Anacortes, WA.

Awards: 2009- Outstanding Graduating Senior, WWU.

Jessica Farrer (2006-2008). Current: Stranding Network Coord./Data Specialist, The Whale Museum.

Harbor seal abundance in Bellingham, Washington.

Publication: 2010- Northwestern Naturalist 91: 74-79.

**Dr. Jessie Perry (Patterson)** (2006). Current: Physical Therapist, Valley Physical Therapy.

(DPT from University of Montana.)

Tidal influence on the haul-out behavior of harbor seals.

Publication: 2008- Northwestern Naturalist 89: 17-23.

**Dr. Sarah Myhre** (2003-2006). Current: Prog. Dir. Clim. Advocacy & Dem. Ref., Glaser Progress Found. (PhD from University of California Davis.)

The sea urchin Diadema antillarum and coral recovery, Caribbean Costa Rica.

Species inventory in the tidepools of Gandoca-Manzanillo Wildlife Refuge, Costa Rica.

Publication: 2007- Marine Ecology Progress Series 329: 205-210.

**MSc Amber Johnson** (2003-2005). Current: Habitat Biologist, Washington Dept. of Fish & Wildlife. (MSc from Oregon State University.)

Regulation compliance and harbor seal (Phoca vitulina) disturbance.

Awards: 2007- Presidential Scholars Award, WWU.

Publication: 2007- Canadian Journal of Zoology 85: 290-294.

MSc Alyssa Matthews (2003-2005). After graduation: MSc from University of Washington.

Association patterns of bottlenose dolphins in Golfo Dulce, Costa Rica.

**Morghan Austin Hainline** (2003-2004). After graduation: Office Manage, Bridgeport Behavioral Health. *Barnacle size relative to snail distribution in Larabee State Park, Washington.* 

## WESTERN UNDERGRADUATES AS RESEARCH ASSISTANTS (BIOL 300)

257 students (average stay:  $8.0 \pm SD$  5.8 months).

https://faculty.aceveda.wwu.edu/People%20HTML%20files/PasAssistants.html

One peer-reviewed paper by 1 student.

Direct supervisor: Graduate students, mentored undergraduate students, myself.

#### SCIENTIFIC PRESENTATIONS AT STUDENT MEETINGS

53 presentations by graduate students.

79 presentations by undergraduate students.

## OTHER TEACHING ACTIVITIES

## **Western Washington University**

- -Undergraduate and graduate students gave 109 scientific presentations at student-based meetings.
- -Member of 11 Graduate Thesis Committees, Department of Biology.
- -Supervised 4 undergraduates taking BIOL400-Independent Study.
- -Supervised 13 undergraduates taking BIOL496-Professional Work Experience.
- -Supervised 58 undergraduate students taking BIOL498-Teaching Practicum.
- -Supervised 1 student taking Professional Work Experience in Secondary Education, SMATE.

#### **Mentored International Students**

**Dr. Valentina Melica** (2012). University of Trieste, Italy. *Harbor seal* (Phoca vitulina) *abundance in Bellingham*.

#### **Mentored Science Teachers**

**Rebecca Krueger** (2005-2006). Mount Vernon High School science teacher. Harbor seal (Phoca vitulina) habitat use in a candidate marine reserve in Skagit County, WA.

# **SCHOLARSHIP**

(<sup>1</sup>WWU undergraduate student, <sup>2</sup>WWU graduate student, <sup>3</sup>former WWU student)

## **REFEREED PUBLICATIONS**

- Conwell, H. C.<sup>1</sup>, Lewis, Z. K.<sup>2</sup>, *Thomas, A.*<sup>3</sup>, <u>Acevedo-Gutiérrez, A.</u> & Schwarz, D. Sex-specific diet differences in harbor seals (*Phoca vitulina*) via spatial assortment. *Ecology and Evolution*. DOI: 10.1002/ece3.11417
- Gard, M.<sup>1</sup>, Lewis, Z. K.<sup>2</sup>, *Akmajian*, *A.M.*<sup>3</sup>, Acevedo-Gutiérrez, A. & Schwarz, D. Comparison of paired sex ratio estimates obtained from novel molecular assays and visual surveys in the sexually dimorphic Steller sea lion (*Eumetopias jubatus*). *Conservation Genetics Resources*. DOI: 10.1007/s12686-024-01358-2
- McKeegan, K.<sup>2</sup>, Clayton, K.<sup>1</sup>, Williams, R., Ashe, E., Reiss, S., Mendez-Bye, A., Janik, V. M., Goetz, T., Zinkgraf, M. & Acevedo-Gutiérrez, A. The effect of a startle-eliciting device on the foraging success of individual harbor seals (*Phoca vitulina*). *Scientific Reports* 14: 3719. DOI: 10.1038/s41598-024-54175-w
- Acevedo-Gutiérrez, A., Lewis, Z. K.<sup>2</sup>, Scordino, J. J., Allyn, E. M., Lance, M. M., Brown, S., Schwarz, D. & *Akmajian*, *A. M.*<sup>3</sup>. First diet description of the harbor seal *(Phoca vitulina)* in the northwest corner of the Olympic Peninsula, Washington State. *Northwestern Naturalist* 104: 253-263. DOI: 10.1898/NWN22-17
- Douglas, A. B., Garita Alpízar, F., Acevedo-Gutiérrez, A., Mahaffy S. D., Rasmussen K., Quintana-Rizzo, E., De Weerdt J., Palacios, D. M., Martínez-Fernández, D., Lazcano-Pacheco, C., Ortega Ortiz, C. D., Ransome, N., Frisch-Jordán, A., Villegas-Zurita, F., Calambokidis, J. & Baird R. W. False killer whales (Pseudorca crassidens Cetacea: Delphinidae) along the Pacific coast of Central America and Mexico: Long-term site movements, association patterns and 5285assessment of fishery interactions. Revista de Biología Tropical 71: e57189. DOI: 10.15517/rev.biol.trop..v71iS4.57189
- Bankhead, K.<sup>1</sup>, *Freeman, G.*<sup>3</sup>, Heimbichner-Goebel, W.<sup>1</sup> & Acevedo-Gutiérrez, A. Effects of anthropogenic noise on haul-out numbers of harbor seals (*Phoca vitulina*). *Canadian Journal of Zoology* 101: 720-728. DOI: 10.1139/cjz-2023-0053
- Buzzell, B.<sup>2</sup>, Akmajian, A.<sup>3</sup> & Acevedo-Gutiérrez, A. Exploring the biotic resistance of the invasive European green crab (*Carcinus maenas*) by examining the diet of North American river otters (*Lontra canadensis*). *Fishery Bulletin* 121: 30-35. DOI 10.7755/FB.121.1-2.3

- Freeman, G.<sup>2</sup>, Matthews, E.<sup>1</sup>, Stehr, E.<sup>1</sup> & Acevedo-Gutiérrez, A. Individual variability in foraging success of a marine predator informs predator management. *Scientific Reports* 12: 11184. DOI 10.1038/s41598-022-15200-y
- 2022 Thomas, A. C.³, Deagle, B., Nordstrom, C., Majewski, S., Nelson, B. W., Acevedo-Gutiérrez, A., Jeffries, S., Moore, J., Louden, A., Allegue, H., Pearson, S., Schmidt, M. & Trites, A. W. Data on the diets of Salish Sea harbour seals from DNA metabarcoding. Scientific Data 9: 68. DOI 10.1038/s41597-022-01152-5
- Amundin, M., Carlström, J., Thomas, L., Carlén, I., Koblitz, J.C., Teilmann, J., Tougaard, J., Tregenza, N., Wennerberg, D., Loisa, O., Brundiers, K., Kosecka, M., Kyhn, L.A., Tiberi Ljungqvist, C., Sveegaard, S., Burt, M.L., Pawliczka, I., Jussi, I., Koza, R., Arciszewski, B., Galatius, A., Jabbusch, M., Laaksonlaita, J., Lyytinen, S., Niemi, J., Šaškov, A. MacAuley, J., Wright, A., Gallus, A., Blankett, P., Dähne, M., Acevedo-Gutiérrez, A. & Benke, H. Estimating the abundance of the critically endangered Baltic Proper harbour porpoise (*Phocoena phocoena*) population using passive acoustic monitoring. *Ecology and Evolution* 12: e8554. DOI 10.1002/ece3.8554
- Nelson, B. W., Pearson, S. F., Anderson, J. H., Jeffries, S., Thomas, A. C.<sup>3</sup>, Walker, W. A., Acevedo-Gutiérrez, A., Kemp, I. M., Lance, M. M., Louden, A. & Voelker, M. R.<sup>2</sup> Variation in predator diet and prey size affects perceived impacts to salmon species of high conservation concern. *Canadian Journal of Fisheries and Aquatic Sciences* 78: 1661-1676. DOI 10.1139/cjfas-2020-0300
- Hanuscin, D., Donovan, D., Acevedo-Gutiérrez, A., Borda, E., DeBari, S., Melton, J., Le, T., Morrison, W., & Ronca, R. Supporting the professional development of science teacher educators through shadowing. *International Journal of Science and Mathematics Education* 19 (Suppl. 1): S145-S165. DOI 10.1007/s10763-021-10154-5
- Voelker, M.<sup>2</sup>, Schwarz, D., Thomas, A.<sup>3</sup>, Nelson, B. & Acevedo-Gutiérrez, A. Large-scale molecular barcoding of prey DNA reveals environmental predictors of intrapopulation feeding diversity in a marine predator. *Ecology and Evolution* 10: 9867-9885. DOI 10.1002/ece3.6638
- Nikolich, K.<sup>2</sup>, Frouin-Moury, H. & Acevedo-Gutiérrez, A. Clear diel patterns in breeding calls of harbor seals (*Phoca vitulina*) at Hornby Island, British Columbia. *Canadian Journal of Zoology* 96: 1236-1243. DOI 10.1139/cjz-2018-0018
- 2018 Schwarz, D., Spitzer, S.<sup>1</sup>, Thomas, A.<sup>3</sup>, Kohnert, C.<sup>2</sup>, Keates, T.<sup>1</sup> & Acevedo-Gutiérrez, A. Large-scale molecular diet analysis in a generalist marine mammal reveals male preference for prey of conservation concern. *Ecology and Evolution* 8: 9889-9905. DOI: 10.1002/ece3.4474
- 2018 Carlén, I., Thomas, L., Carlström, J., Amundin, M., Teilmann, J., Tregenza, N., Tougaard, J., Koblitz, J.C., Sveegaard, S., Wennerberg, D., Loisa, O., Dähne, M., Brundiers, K., Kosecka, M., Kyhn, L.A., Ljungqvist, C.T., Pawliczka, I., Koza, R., Arciszewski, B., Galatius, A., Jabbusch, M., Laaksonlaita, J., Niemi, J., Lyytinen, S., Gallus, A., Benke, H., Blankett, P., Skóra, K.E., & Acevedo-Gutiérrez, A. Basin-scale distribution of harbour porpoises in the Baltic Sea provides basis for effective conservation actions. *Biological Conservation* 226: 43-53. DOI 10.1016/j.biocon.2018.06.031
- 2018 Acevedo-Gutiérrez, A. Group Behavior. In: Würsig, B., Thewissen, J. G. M. & Kovacs, K. K. (eds.) *Encyclopedia of Marine Mammals*. pp 428-435. 3<sup>rd</sup> edition. Academic Press, San Diego, USA. DOI 10.1016/B978-0-12-804327-1.00141-2
- 2017 Chasco, B. E., Kaplan, I. C., Thomas, A. C.<sup>3</sup>, Acevedo-Gutiérrez, A., Noren, D. P., Ford, M. J., Hanson, M. B., Scordino, J. J., Jeffries, S. J., Marshall, K. N. Shelton, A. O., Matkin, C., Burke, B. J. & Ward, E. J. 2017. Competing tradeoffs between increasing marine mammal predation and fisheries harvest of Chinook salmon. *Scientific Reports* 7: 15439. DOI 10.1038/s41598-017-14984-8
- 2017 Akmajian, A. M.², Scordino, J. J. & Acevedo-Gutiérrez, A. Year-round algal toxin exposure in freeranging sea lions. *Marine Ecology Progress Series* 583: 243-258. DOI 10.3354/meps12345
- Olson, J. <sup>2</sup> & Acevedo-Gutiérrez, A. Influence of human exposure on the anti-predatory response of harbor seals (*Phoca vitulina*). *Aquatic Mammals* 43: 673-681. DOI 10.1578/AM.43.6.2017.673

- 2017 Chasco, B., Kaplan, I., Thomas, A.<sup>3</sup>, Acevedo-Gutiérrez, A., Noren, D. P., Ford, M. J., Hanson, M. B., Scordino, J., Jeffries, S. J., Pearson, S. F., Marshall, K. & Ward, E. J. Estimates of Chinook salmon consumption in Washington State inland waters by four marine mammal predators from 1970 2015. *Canadian Journal of Fisheries and Aquatic Sciences*. 74: 1173-1194. DOI 10.1139/cjfas-2016-0203
- 2017 Rothstein, A.<sup>2</sup>, McLaughlin, R.<sup>2</sup>, Acevedo-Gutiérrez, A. & Schwarz, D. WISEPAIR: a computer program for individual matching in genetic tracking studies. *Molecular Ecology Resources* 17: 267-277. DOI 10.1111/1755-0998.12590
- 2017 Cates, K.<sup>1</sup> & Acevedo-Gutiérrez, A. Harbor seal (*Phoca vitulina*) tolerance to vessels under different levels of boat traffic. *Aquatic Mammals* 43: 193-200. DOI 10.1578/AM.43.2.2017.193
- 2016 Moreno, K.<sup>1</sup> & Acevedo-Gutiérrez, A. The social structure of Golfo Dulce bottlenose dolphins (*Tursiops truncatus*) and the influence of behavioural state. *Royal Society Open Science* 3: 160010. DOI 10.1098/rsos.160010
- Nikolich, K.<sup>2</sup>, Frouin-Moury, H. & Acevedo-Gutiérrez, A. Quantitative classification of harbor seal breeding calls in Georgia Strait, Canada. *Journal of the Acoustical Society of America* 140: 1300-1308. DOI 10.1121/1.4961008
- 2016 Adams, J., Kaplan, I., Chasco, B., Marshall, K. N., Acevedo-Gutiérrez, A. & Ward, E. J. A century of Chinook salmon consumption by marine mammal predators in the Northeast Pacific Ocean. *Ecological Informatics* 34: 45-51. DOI 10.1016/j.ecoinf.2016.04.010
- 2015 Bjorkland, R. H., Pearson, S. F, Jeffries, S. J, Lance, M. M., Acevedo-Gutiérrez, A. & Ward, E. J. Stable isotope mixing models elucidate sex and size effects on the diet of a generalist marine predator. *Marine Ecology Progress Series* 526: 213-225. DOI 10.3354/meps11230
- Wilson, K.<sup>2</sup>, Lance, M., Jeffries, S. & Acevedo-Gutiérrez, A. Fine-scale variability in harbor seal foraging behavior. *PLoS ONE* 9: e92838. DOI 10.1371/journal.pone.0092838
- 2014 Buzzell, B.<sup>1</sup>, Lance, M. & Acevedo-Gutiérrez, A. Spatial and temporal variation in river otter (*Lontra canadensis*) diet and predation on rockfish (Genus *Sebastes*) in the San Juan Islands, Washington. *Aquatic Mammals* 40: 150-161. DOI 10.1578/AM.40.2.2014.150
- 2014 Bessesen, B. L., Oviedo, L., Hart, L. B., Herra-Miranda, D., Pacheco-Polanco, J. D., Baker, L.<sup>1</sup>, Saborío-R., G., Bermúdez-Villapol, L. & Acevedo-Gutiérrez, A. Lacaziosis-like disease among bottlenose dolphins *Tursiops truncatus* photographed in Golfo Dulce, Costa Rica. *Diseases of Aquatic Organisms* 107: 173-180. DOI 10.3354/dao02692
- 2013 Luxa, K.<sup>2</sup> & Acevedo-Gutiérrez, A. Food habits of harbor seals (*Phoca vitulina*) in two estuaries in the Central Salish Sea. *Aquatic Mammals* 39: 10-22. DOI 10.1578/AM.39.1.2013.10
- Bromaghin, J. F., Lance, M. M., Elliot, E. W., Jeffries, S. J., Acevedo-Gutiérrez, A. & Kennish, J. M. New insights into the diets of harbor seals in the Salish Sea of western North America revealed by quantitative fatty acid signature analysis. *Fishery Bulletin* 111: 13-26. DOI 10.7755/FB.111.1.2
- 2013 Howard, S.<sup>2</sup>, Lance, M, Jeffries, S. & Acevedo-Gutiérrez, A. Fish consumption by harbor seals (*Phoca vitulina*) in the San Juan Islands, WA. *Fishery Bulletin* 111: 27-41. DOI 10.7755/FB.111.1.3
- 2012 Lance, M. M., Chang, W.-Y., Jeffries, S. J., Pearson, S. F. & Acevedo-Gutiérrez, A. Harbor seal diet in northern Puget Sound: implications for the recovery of depressed fish stocks. *Marine Ecology Progress Series* 464: 257-271. DOI 10.3354/meps09880
- Peterson, S. H.<sup>2</sup>, Lance, M. M., Jeffries, S. J. & Acevedo-Gutiérrez, A. Long distance movements and disjunct spatial use of harbor seals (*Phoca vitulina*) in the inland waters of the Pacific Northwest. *PLoS ONE* 7: e39046. DOI 10.1371/journal.pone.0039046
- Ward, E. S., Levin, P. S., Lance, M. M., Jeffries, S. J. & Acevedo-Gutiérrez, A. Integrating diet and movement data to identify hot spots of predation risk and areas of conservation concern for endangered species. *Conservation Letters* 5: 37-47. DOI 10.1111/j.1755-263X.2011.00210.x

10

- Thomas, A.<sup>2</sup>, Lance, M. M., Jeffries, S. J., Miner, B. & Acevedo-Gutiérrez, A. Harbor seal foraging response to a seasonal resource pulse, spawning Pacific herring. *Marine Ecology Progress Series* 441: 225-239. DOI 10.3354/meps09370
- Acevedo-Gutiérrez, A., Acevedo, L., & Boren, L. Effects of the presence of official-looking volunteers on harassment of New Zealand fur seals. *Conservation Biology* 25: 623-627. DOI 10.1111/j.1523-1739.2010.01611.x
- Acevedo-Gutiérrez, A. & Cendejas-Zarelli, S.<sup>1</sup> Nocturnal haul-out patterns of harbor seals (*Phoca vitulina*) related to airborne noise levels in Bellingham, Washington, USA. *Aquatic Mammals* 37: 167-174. DOI 10.1578/AM.37.2.2011.167
- Acevedo-Gutiérrez, A., Acevedo, L., Belonovich, O. & Boren, L. How effective are posted signs to regulate tourism? An example with New Zealand fur seals. *Tourism in Marine Environments* 7: 39-41. DOI 10.3727/154427310X12826772784874
- Farrer, J.<sup>1</sup> & Acevedo-Gutiérrez, A. Use of haul-out sites by harbor seals (*Phoca vitulina*) in Bellingham: implications for future development. *Northwestern Naturalist* 91: 74-79. DOI 10.1898/NWN08-46.1
- 2009 Acevedo-Gutiérrez, A. Group Behavior. In: Perrin, W. F., Würsig, B. & Thewissen, J. G. M. (eds.) *Encyclopedia of Marine Mammals*. pp 511-520. 2<sup>nd</sup> edition. Academic Press, San Diego, USA. DOI 10.1016/B978-0-12-373553-9.00120-6
- 2009 Acevedo-Gutiérrez, A. Habitat Use. In: Perrin, W. F., Würsig, B. & Thewissen, J. G. M. (eds.) *Encyclopedia of Marine Mammals*. pp 525-529. 2<sup>nd</sup> edition. Academic Press, San Diego, USA. DOI 10.1016/B978-0-12-373553-9.00123-1
- 2008 Patterson, J.<sup>1</sup> & Acevedo-Gutiérrez, A. Tidal influence on the haul-out behavior of harbor seals (*Phoca vitulina*) in a site available at all tide levels. *Northwestern Naturalist* 89: 17-23. DOI 10.1898/1051-1733(2008)89[17:TIOTHB]2.0.CO;2
- Johnson, A.<sup>1</sup> & Acevedo-Gutiérrez, A. Regulation compliance by vessels and disturbance of harbour seals (*Phoca vitulina*). *Canadian Journal of Zoology* 85: 290-294. DOI 10.1139/Z06-213
- 2007 Myhre, S.<sup>1</sup> & Acevedo-Gutiérrez, A. Recovery of sea urchin *Diadema antillarum* populations is correlated to increased coral and reduced macroalgal cover. *Marine Ecology Progress Series* 329: 205-210. DOI 10.3354/meps329205
- Acevedo-Gutiérrez, A., DiBerardinis, A., Larkin, S., Larkin, L. & Forestell, P. Social interactions between tucuxis and bottlenose dolphins in Gandoca-Manzanillo, Costa Rica. *Latin American Journal of Aquatic Mammals* 4: 49-54. DOI 10.5597/lajam00069
- Acevedo-Gutiérrez, A. & Stienessen, S. C. Bottlenose dolphins (*Tursiops truncatus*) increase number of whistles when feeding. *Aquatic Mammals* 30: 357-362. DOI 10.1578/AM.30.3.2004.357
- Acevedo-Gutiérrez, A. Interactions between marine predators: dolphin food intake is related to number of sharks. *Marine Ecology Progress Series* 240: 267-271.
- Acevedo-Gutiérrez, A., Croll, D. & Tershy, B. High feeding costs limit dive time in large whales. *Journal of Experimental Biology* 205: 1747-1753.
- Acevedo-Gutiérrez, A. Group Behavior. In: Perrin, W. F., Würsig, B. & Thewissen, J. G. M. (eds.) *Encyclopedia of Marine Mammals*. pp. 537-544. Academic Press, San Diego, USA.
- 2002 Croll, D., Clark, C. W., Acevedo, A., Tershy, B., Flores, S., Gedamke, J. & Urbán, J. Only male fin whales sing loud songs. *Nature* 417: 809.
- 2001 Croll, D., Acevedo-Gutiérrez, A., Tershy, B. & Urbán-R., J. The diving behavior of blue and fin whales: is dive duration shorter than expected based on oxygen stores? *Comparative Biochemistry and Physiology A* 129: 797-809.
- Acevedo-Gutiérrez, A. & Parker, N. Surface behavior of bottlenose dolphins is related to spatial arrangement of prey. *Marine Mammal Science* 16: 287-298.
- 1999 Acevedo-Gutiérrez, A. Aerial behavior is not a social facilitator in bottlenose dolphins hunting in small groups. *Journal of Mammalogy* 80: 768-776.

- 1998 Acevedo-Gutiérrez, A. & Burkhart, S. Seasonal distribution of bottlenose (*Tursiops truncatus*) and pan-tropical spotted (*Stenella attenuata*) dolphins in Golfo Dulce, Costa Rica. *Revista de Biología Tropical* 46, Suppl. 6: 91-101.
- 1997 Acevedo-Gutiérrez, A., Brennan, B., Rodríguez, P. & Thomas, M. Resightings and behavior of false killer whales, *Pseudorca crassidens*, in Costa Rica. *Marine Mammal Science* 13: 307-314.
- 1996 Acevedo, A. Lista de mamíferos marinos en Golfo Dulce e Isla del Coco, Costa Rica. *Revista de Biología Tropical* 44: 933-934.
- 1996 Fertl, D., Acevedo-Gutiérrez, A. & Darby, F. A report of killer whales (*Orcinus orca*) feeding on a carcharhinid shark in Costa Rica. *Marine Mammal Science* 12: 606-611.
- 1995 Acevedo, A. & Smultea, M. First records of humpback whales including calves at Golfo Dulce and Isla del Coco, Costa Rica, suggesting geographical overlap of northern and southern hemisphere populations. *Marine Mammal Science* 11: 554-559.
- 1994 Acevedo-Gutiérrez, A. First record of a sea lion, *Zalophus californianus*, at Isla del Coco, Costa Rica. *Marine Mammal Science* 10: 484-485.
- 1994 Acevedo-Gutiérrez, A. First records of occurrence and nesting of three bird species at Isla del Coco, Costa Rica. *Revista de Biología Tropical* 42: 762.
- Bräger, S., Würsig, B., Acevedo, A. & Henningsen, T. Association patterns of bottlenose dolphins (*Tursiops truncatus*) in Galveston Bay, Texas. *Journal of Mammalogy* 75: 431-437.
- 1993 Tershy, B., Acevedo-G., A., Breese, D. & Strong, C. Diet and feeding behavior of fin and Bryde's whales in the Central Gulf of California, México. *Revista de Investigación Científica* (No. Esp. SOMEMMA) 1: 31-37.
- 1991 Acevedo, A. Behaviour and movements of bottlenose dolphins, *Tursiops truncatus*, in the entrance to Ensenada de La Paz, México. *Aquatic Mammals* 17: 137-147.
- 1991 Acevedo, A. Interactions between boats and bottlenose dolphins, *Tursiops truncatus*, in the entrance to Ensenada de La Paz, México. *Aquatic Mammals* 17: 120-124.
- 1991 Acevedo, A. & Würsig, B. Preliminary observations on bottlenose dolphins, *Tursiops truncatus*, at Isla del Coco, Costa Rica. *Aquatic Mammals* 17: 148-151.

#### **SELECTED GRANTS** (amounts in bold font from external grants)

#### **Principal or Co-Principal Investigator**

- -Racial Equity in STEM Starts with Teacher Education.
  - Submitted to National Science Foundation. (co-PI). \$466,438. With E. Borda, D. Hanley, Don Burgess and others.
- -Individual foraging behavior in harbor seals.
  - 2023 Publication funded by Research and Sponsored Programs. (PI). \$2,200.
  - Publication funded by Research and Sponsored Programs. (PI). \$2,265.
- -Inclusion via outreach by students and faculty.
  - Funded by Thaddeus Spratlen and Lois Price-Spratlen Inclusion and Diversity Grants Program. (co-PI). \$2,990. With N. Galati and others.
- -Predation of green crabs by river otters on the lower Wa'atch River and Tsoo-Yess rivers, Washington.
- Funded by Conservation, Research & Education Opportunities International. (co-PI). **\$5,000.** With *A. Akmajian*<sup>3</sup>.
- Funded by North Pacific Coast Marine Resources Committee. (co-PI). \$20,250. With B. Buzzell<sup>2</sup>.
- -Local sex ratios and sex-specific predation by harbor seals in the Salish Sea of Washington State.
  - Publication funded by Research and Sponsored Programs. (co-PI). \$2,200. With D. Schwarz
  - Funded by Salish Sea Marine Survival Project. (co-PI). \$31,944. With D. Schwarz and A. *Thomas*<sup>3</sup>.

- -Winter and spring pinniped predation on Chinook salmon in northwest Washington.
  - Funded by Washington Sea Grant, (co-PI), \$194.743, With A. Akmajian<sup>3</sup> and D. Schwarz.
- -Winter and spring pinniped predation on Chinook salmon in northwest Washington.
  - Funded by Washington Sea Grant. (co-PI). \$159,611, With A. Akmajian<sup>3</sup> and D. Schwarz. 2020-2022
- -Foraging specialization in harbor seals.
  - 2017 Funded by Long Live The Kings. (PI). \$12,355. With D. Schwarz.
- 2016 Funded by Long Live The Kings. (PI). \$20,407. With D. Schwarz.
- 2013 Funded by Research and Sponsored Programs. (PI). \$24,123. With D. Schwarz.
- -An ecosystem model to quantify marine mammal impacts on Chinook salmon in the NE Pacific Ocean. 2014-2016 Funded by Pacific Salmon Commission. (co-PI). \$242,000. With I. Kaplan and others.
- -Response of harbor seals to increased rockfish density.
  - Publication funded by Research and Sponsored Programs. (PI). \$705. 2013
  - 2006-2012 Funded by National Science Foundation OCE-0550443. (PI). \$720.000.
  - 2005-2007 Funded by M. J. Murdock Charitable Trust. (PI). \$14,000.
  - 2003 Funded by Bureau for Faculty Research. (PI). \$25,044.
- -Catalysts for reform: a university-schools partnership in northwest Washington.
  - Funded by National Science Foundation DGE-0338354. (co-PI). \$1,868,627. With S. 2003-2007 Linneman and G. Muller-Parker.
- -Social interactions between two dolphin species.
  - 2003-2004 Funded by Earthwatch Institute. (PI). \$13,700. With S. Caballero.
  - 2003-2004 Funded by Bureau for Faculty Research, WWU. (PI). \$5,000.
- -Developing Science Education 390 at Shannon Point Marine Center.
  - 2004 Funded by Bureau for Faculty Research, WWU. (PI). \$5,000.
- -Determination of fin whale residency patterns to prioritize conservation areas in the Gulf of California. 2000-2001 Funded by UC MEXUS-CONACYT. (co-PI). \$24,650. With D. Croll. B. Tershy, J. Urbán.
- -Group hunting in dusky dolphins: Mechanisms and benefits of regulating group size.
  - Funded by MacGillivray Freeman Films. (co-PI). \$22,000. With K. Dudzinski, B. Würsig. 1998
- -Foraging ecology of bottlenose dolphins, sharks and seabirds at Isla del Coco.
  - 1994 Funded by Embassy of The Netherlands in Costa Rica. (PI). \$2,500.
  - 1990 Funded by American Museum of Natural History. (PI). \$1,500.
- -Ecology of bottlenose dolphins in Golfo Dulce.
  - Funded by Center for Field Research. (PI). \$65,500. With J. Packard, B. Würsig.
- -Behavior and movements of bottlenose dolphins in La Paz, México.
  - Funded by CONACYT, México. (PI). \$400,000 MEX. 1985

## **REFEREED SCIENTIFIC PRESENTATIONS** (out of 68)

- Otto, A.<sup>2</sup>, D'Agnese, E.<sup>3</sup>, Casey, C., Zinkgraf, M., Acevedo-Gutiérrez, A. & Schwarz, D. Genetic 2024 population structure of harbor seals' (*Phoca vitulina*) subpopulations in the Salish Sea. 2<sup>nd</sup> Workshop of the Eastern Pacific Marine One Health Coalition, Stevenson, USA. February.
- Vinecke, V.<sup>2</sup>, Acevedo-Gutiérrez, A., *Thomas, A.*<sup>3</sup>, & Schwarz, D. Individual identification and 2024 sex determination of harbor seals (*Phoca vitulina*) utilizing aquatic environmental DNA. 2<sup>nd</sup> Workshop of the Eastern Pacific Marine One Health Coalition, Stevenson, USA. February.
- 2023 Lewis, Z.<sup>2</sup>, Akmajian, A.<sup>3</sup>, Nelson, B., Scordino, J. J., Allyn, E. M., Lance, M. M., Schwarz, D. & Acevedo-Gutiérrez, A. Steller sea lion (Eumetopias jubatus) consumption of age-0 Chinook salmon (Oncorhynchus tshawytscha) along the northwest coast of Washington State. Salmon Recovery Conference (online). April.
- 2023 McKeegan, K.<sup>2</sup>, Clayton, K.<sup>1</sup>, Williams, R., Ashe, E., Reiss, S., Mendez-Bye, A., Janik, V., Goetz, T., Zingkraf, M. & Acevedo-Gutiérrez, A. Assessing the effects of Targeted Acoustic

- Startle Technology on the foraging success of individual harbor seals. Alaska Marine Science Symposium, Anchorage, USA. January.
- 2022 McKeegan, K.<sup>2</sup>, Clayton, K.<sup>1</sup> & Acevedo-Gutiérrez, A. The effect of Targeted Acoustic Startle Technology on the foraging success of individual harbor seals. North American Congress for Conservation Biology, Reno, USA. July.
- 2022 Lewis, Z. K.<sup>2</sup>, Akmajian, A. M.<sup>3</sup>, Schwarz, D. & Acevedo-Gutiérrez, A. Diet profile of coastal Washington Steller sea lion (*Eumetopias jubatus*) stocks: Investigating predation impacts on the iconic Chinook salmon (*Oncorhynchus tshawytscha*). North American Congress for Conservation Biology, Reno, USA. July.
- Lewis, Z. K.<sup>2</sup>, Akmajian, A. M.<sup>3</sup>, Schwarz, D. & Acevedo-Gutiérrez, A. Novel diet profile of coastal Washington Steller sea lion (*Eumetopias jubatus*) stocks: Investigating predation impacts on Chinook salmon (*Oncorhynchus tshawytscha*). 2022 Virtual Salish Sea Ecosystem Conference. (online) April.
- McKeegan, K.<sup>2</sup>, Clayton, K.<sup>1</sup> & Acevedo-Gutiérrez, A. The effect of Targeted Acoustic Startle Technology on the foraging success of individual harbor seals (*Phoca vitulina*). 2022 Virtual Salish Sea Ecosystem Conference. (online) April.
- Buzzell, B.<sup>2</sup>, Acevedo-Gutiérrez, A. & *Akmajian*, A. M.<sup>3</sup>. Exploring biotic resistance of an invasive species via river otter diet: Is European green crab a preferred fare? 2022 Virtual Salish Sea Ecosystem Conference. (online) April.
- McKeegan, K.<sup>2</sup>, Clayton, K.<sup>1</sup> & Acevedo-Gutiérrez, A. The effect of Targeted Acoustic Startle Technology on the foraging success of individual harbor seals. Whatcom Marine Research Symposium. (online) February.
- Acevedo-Gutiérrez, A., Spitzer, S.<sup>1</sup>, Thomas, A. C.<sup>3</sup>, Kohnert, C.<sup>2</sup> & Schwarz, D. Molecular techniques reveal that male harbor seals have a larger negative impact on salmonids than females. 22<sup>nd</sup> Biennial Conference on the Biology of Marine Mammals, Halifax, Canada. October.
- Wachtendonk, R.<sup>1</sup>, Matthews, E.<sup>1</sup> & Acevedo-Gutiérrez, A. Are there rogue harbor seals in Whatcom Creek? The potential impact of harbor seals on a local salmon hatchery. 22<sup>nd</sup> Biennial Conference on the Biology of Marine Mammals, Halifax, Canada. October.
- 2016 Fernández-Martín, E. M., Schramm, Y., Heckel, G., Acevedo-Gutiérrez, A., García-Aguilar, M. C., Torres de la Riva, G. & Trujillo-Ortiz, A. Fenología de los nacimientos de la foca común, *Phoca vitulina richardii*, en México. XXXV Reunión Internacional para el Estudio de los Mamíferos Marinos, La Paz, Mexico. May.
- Nikolich, K. A.<sup>2</sup>, Frouin-Mouy, H. & Acevedo-Gutiérrez, A. The temporal patterns of the breeding calls of harbour seals in Georgia Strait, Canada. 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals, San Francisco, USA. December.
- 2015 D'Agnese, E.², Lambourn, D., Huber, H., Jeffries, S. J. & Acevedo-Gutiérrez, A. The effects of maternal traits on rearing success in Pacific harbor seals (*Phoca vitulina richardsii*). 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals, San Francisco, USA. December.
- Nikolich, K. A<sup>2</sup>, Frouin-Mouy, H. & Acevedo-Gutiérrez, A. The temporal patterns of the breeding calls of harbour seals in Georgia Strait, Canada. 52<sup>nd</sup> Annual Conference of the Animal Behavior Society, Anchorage, USA. June.
- 2014 Rothstein, A. P.<sup>2</sup>, *Thomas, A.*<sup>3</sup>, Keates, T.<sup>1</sup>, Kohnert, C.<sup>1</sup>, Majewski, S., Acevedo-Gutiérrez, A. & Schwarz, D. A non-invasive method for genetic re-sampling of harbor seals (*Phoca vitulina*) as a model for marine mammals research. 2<sup>nd</sup> North America Congress for Conservation Biology, Missoula, USA. July.
- 2012 Bromaghin, J. F., Lance, M. M., Elliot, E. W., Jeffries, S. J., Kennish, J. M. & Acevedo-Gutiérrez, A. Estimating mean predator diet composition using fatty acid data. Alaska Marine Science Symposium, Anchorage, USA. January.
- Douglas, A. B., Alpízar, F. G., Acevedo-Gutiérrez, A., Mahaffy, S. D., Baird, R. W. & Calambokidis, J. False killer whales show fidelity to Costa Rican waters. 19<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Tampa, USA. November.

- 2011 Bromaghin, J. F., Lance, M. M., Elliot, E. W., Jeffries, S. J., Kennish, J. M. & Acevedo-Gutiérrez, A. Estimating mean predator diet composition using fatty acid signature data. 18<sup>th</sup> Wildife Conference of the Wildlife Society, Waikoloa, USA. November.
- 2011 Lance, M. M., Chang, W.-Y., Jeffries, S. J. & Acevedo-Gutiérrez, A. Seasonal and spatial variation in harbor seal (*Phoca vitulina*) diet in the San Juan Islands. Salish Sea Ecosystem Conference, Vancouver, Canada. October.
- Thomas, A.<sup>2</sup>, Lance, M. M., Jeffries, S. J. Miner, B. & Acevedo-Gutiérrez, A. 2011. Harbor seal foraging response to seasonal resource pulse, spawning Pacific herring. Salish Sea Ecosystem Conference, Vancouver, Canada. October. *Best Student Presentation*.
- 2011 Lance, M. M., Jeffries, S. J., Chang, W.-Y., Elliot, E. W, Bromaghin, J. F., Kennish, J. M. & Acevedo-Gutiérrez, A. Seal and sea lion predation on rockfish in Puget Sound. Rockfish Recovery in the Salish Sea: Research and Management Priorities Workshop, NOAA, Seattle, USA. June.
- Ward, E. J., Levin, P. & Acevedo, A. Utilizing hierarchical models of individual movement to construct maps of spatial predation risk. 95<sup>th</sup> Ecological Society of America Annual Meeting, Pittsburgh, USA. August.
- Acevedo-Gutiérrez, A., Acevedo, L. & Boren, L. Managing interactions between tourists and marine mammals: an example with New Zealand fur seals. New Zealand Marine Sciences Society Conference, Wellington, NZ. July.
- Thomas, A.<sup>2</sup>, Lance, M. M., Jeffries, S. J., & Acevedo-Gutiérrez, A. Selective foraging by harbor seals (*Phoca vitulina*): the importance of herring spawning and holding aggregations. Ocean Sciences Meeting, Portland, USA. February.
- Howard, S.<sup>2</sup>, Lance, M. M., Jeffries, S. J. & Acevedo-Gutiérrez, A. Using seasonal variation in individual energetic requirements to simulate energy use in a population of harbor seals (*Phoca vitulina*). 18<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Quebec, Canada. October.
- 2009 McFarland, S. A.<sup>2</sup>, Lance, M. M., Jeffries, S. J., London, J. M. & Acevedo-Gutiérrez, A. Influence of sex and body mass on harbor seal (*Phoca vitulina*) diving behavior. 18<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Quebec, Canada. October.
- Thomas, A.<sup>2</sup>, Lance, M. M., Jeffries, S. J., & Acevedo-Gutiérrez, A. Selective foraging by harbor seals (*Phoca vitulina*): the importance of herring spawning and holding aggregations. 18<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Quebec, Canada. October.
- 2009 Peterson, S.<sup>2</sup>, Lance, M. M., Jeffries, S. J., Olesiuk, P. F. & Acevedo-Gutiérrez, A. Movements and home ranges of harbor seals (*Phoca vitulina*) in the inland waters of the Pacific Northwest. 18<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Quebec, Canada. October.
- Reuland, K.<sup>2</sup>, Thomas, A.<sup>2</sup>, Peterson, S.<sup>2</sup>, Lance, M, Jeffries, S. & Acevedo-Gutiérrez, A. Size of harbor seal foraging regions relative to haul-out site, season, and home range in the Pacific NW. 18<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Quebec, Canada. October.
- 2009 Cate J., Acevedo, L., Boren, L. & Acevedo, A. Jungle seals: a behavioral study of the New Zealand fur seal. University of Canterbury Symposium, Christchurch, New Zealand. September.
- Peterson, M.<sup>2</sup>, Hardee, S.<sup>2</sup>, Linneman, S. & Acevedo-Gutiérrez, A. Integrating novel approaches to classroom structure with local ocean-science models. Ocean Sciences Meeting, Orlando, USA. March.
- Hardee, S.<sup>2</sup>, Reuland, K.<sup>2</sup>, Lance, M, Jeffries, S., Olesiuk, P. & Acevedo-Gutiérrez, A. Harbor seal movements and hot-spots in the Georgia Basin revealed through the use of satellite-telemetry. Ocean Sciences Meeting, Orlando, USA. March. *Outstanding Student Award*.
- Reuland, K.<sup>2</sup>, Hardee, S.<sup>2</sup>, Lance, M, Jeffries, S. & Acevedo-Gutiérrez, A. Habitat characteristics of harbor seal (*Phoca vitulina*) foraging locations in the Georgia Basin. Ocean Sciences Meeting, Orlando, USA. March.

15

- 2006 Myhre, S.<sup>1</sup> & Acevedo-Gutiérrez, A. Effects of recovering populations of the sea urchin *Diadema* antillarum on coral recovery and benthic community structure, Caribbean Costa Rica. Ocean Sciences Meeting, Honolulu, USA. February.
- 2005 Acevedo-Gutiérrez, A. & Matthews, A. Association patterns of bottlenose dolphins in Costa Rica: constant companions and casual acquaintances. 16<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, San Diego, USA. December.
- 2005 Banks, A.<sup>2</sup> & Acevedo-Gutiérrez, A. Aggregative response of harbor seals to prey density at small spatial scales within a candidate marine reserve. 16<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, San Diego, USA. December.
- Johnson, A.<sup>1</sup> & Acevedo-Gutiérrez, A. Marine regulation compliance and harbor seal disturbance at Yellow Island, Washington. 16<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, San Diego, USA. December.
- 2005 Urbán, J., Mate, B., Jaume, S., Díaz, C., Tershy, B., Acevedo-Gutiérrez, A., & Croll, D. Determination and characterization of fin whale habitat in the Gulf of California. 16<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, San Diego, USA. December.
- 2005 Harwood, A., Moulds, L., Greer-Courier, D., Acevedo-Gutiérrez, A., Tyran, K., Pappas, J. & McLeod, M. Bridging the gap between theory and practice: programs to build faculty finesse. Western Region Campus Compact Consortium's Eighth Annual 'Continuums of Service' Conference. Portland, USA. April.
- 2003 Acevedo-Gutiérrez, A., Croll, D., Tershy, B., Newton, K. & Urbán-Ramírez, J. Foraging dives of fin whales: are they time- or energy-maximizers? 15<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Greensboro, USA. December.
- 2002 Urbán, J., Mate, B., Bérubé, M., Acevedo, A., Jaume, S., Tershy, B. & Croll, D. Fin whales in the Gulf of California: a resident and isolated population. IV Congress of the Latin-American Society of Specialists in Aquatic Mammals, Valdivia, Chile. October.

# **INVITED SEMINARS AND GUEST LECTURES** (out of 40)

- 2023 "Harbor seal foraging ecology in the Salish Sea". Hatfield Research Seminar Series, Oregon State University, Newport, USA. September. (online)
- 2021 "Harbor seals in Whatcom Creek". Western Washington University, Huxley College Environmental Speaker Series, Western Washington University, Bellingham, USA. November.
- 2017 "Social behavior of bottlenose dolphins and foraging ecology of harbor seals: the importance of the individual". University of Dalhouise—Fertschrift Symposium Honoring Bernd Würsig, Halifax, Canada. October.
- 2017 "Sex matters: male harbor seals have a larger impact on salmon than female harbor seals". Western Washington University, Bellingham, USA. May. With D. Schwarz.
- 2017 "Sistemas de apareamiento de mamiferos marinos". Western Washington University— Eschuchando entendemos: pláticas de la comunidad, Bellingham, USA. February.
- 2013 "The foraging ecology of harbor seals (*Phoca vitulina*) in the Salish Sea". Walla Walla University, Rosario Beach Marine Laboratory, USA. August.
- 2012 "The life of a marine predator: conservation implications of studying the harbor seal (*Phoca vitulina*)". Western Washington University, Bellingham, USA. September.
- 2012 "Marine mammals: harbor seals and killer whales in the Salish Sea". Western Washington University—Oceans class, Bellingham, USA. May.
- 2012 "The foraging ecology of harbor seals in Padilla Bay". Padilla Bay National Estuarine Research Reserve, Mount Vernon, USA. February.
- 2010 "Seals in the woods: what would you do? An example from New Zealand to manage tourism". Western Washington University, Bellingham, USA. January.
- 2009 "Voluntary compliance of tourists: the case of the New Zealand fur seal". Eckerd College—Marine Mammal class, Kaikoura, NZ. January.

- 2006 "Marine community interactions: lessons from coastal systems". Western Washington University, Bellingham, USA. September.
- 2006 "Foraging ecology of marine predators: lessons from dolphins and seals". Skagit Valley Community College, Mount Vernon, USA. February.
- 2003 "Life after school: what and how?". Keynote Speaker Student Workshop-15<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Greensboro, USA. December.
- 2003 "Foraging costs of marine predators: interspecific contests in bottlenose dolphins and lunging behavior in blue whales". Northwest Fisheries Science Center, Seattle, USA. April.
- 2003 "Foraging ecology of marine predators: lessons from dolphins". Shannon Point Marine Center, Anacortes, USA. February.
- 2002 "Dolphins". Instituto Tecnológico y de Estudios Superiores de Monterrey, Móxico. November. (In Spanish).
- 2002 "Foraging ecology of marine predators: lessons from whales and dolphins". Universidad Autónoma de Nuevo León, Monterrey, México. November. (In Spanish).
- 2002 "High feeding costs limit dive time in the largest whales". Universidad Autónoma de Baja California Sur, La Paz, México. June. (In Spanish).

## **NON-REFEREED REPORTS** (out of 38)

- Akmajian, A., Acevedo-Gutiérrez, A. & Schwarz, D. Using molecular scatology to determine winter and spring pinniped predation on chinook salmon in northwest Washington: implications for salmon recovery, fisheries management, and endangered southern resident killer whales. Final Report to Washington Sea Grant Subaward No. UWSC11759 Seattle, USA. pp 10.
- Washington State Academy of Sciences. Pinniped predation on salmonids in the Washington portions of the Salish Sea and outer coast. Final Report to Washington Department of Fish and Wildlife, Seattle, USA. pp 81.
- Würsig, B., Acevedo-Gutiérrez, A., Bräger, S., Cockcroft, V. G., Fertl, D., Henderson, E., Henningsen, T., Irwin (Smith), L. J., Lynn, S. K., Maze-Foley, K. & Weller, D. W. Common bottlenose dolphin (*Tursiops truncatus*) photographic-identification images collected for abundance estimation, occurrence, association pattern, and behavioral observation studies using cameras from small boats in Texas bays, estuaries, and Gulf of Mexico coastal waters by Texas A&M University at Galveston from 1990 to 2001 (NCEI Accession 0250966). NOAA National Centers for Environmental Information. Dataset. https://doi.org/10.25921/v6qk-t573.
- Acevedo-Gutiérrez, A. & Schwarz, D. Foraging specialization in harbor seals and salmon recovery. Final Report to Long Live The Kings, Seattle, USA. pp 5.
- Acevedo-Gutiérrez, A. Individual foraging specialization in harbor seals and salmon recovery. Annual Report to National Marine Fisheries Service, NOAA Fisheries, Silver Spring, USA. pp 4.
- Acevedo-Gutiérrez, A. & Schwarz, D. Foraging specialization in harbor seals. Progress Report to Long Live The Kings, Seattle, USA. pp 4.
- Acevedo-Gutiérrez, A. Individual foraging specialization in harbor seals and salmon recovery.

  Annual Report to National Marine Fisheries Service, NOAA Fisheries, Silver Spring, USA. pp 4.
- Acevedo-Gutiérrez, A. & Schwarz, D. Feasibility and initial collection of harbor seal scat in the inland waters of Whidbey Island. Final Report to Long Live The Kings, Seattle, USA. pp 5.
- Acevedo-Gutiérrez, A. Individual foraging specialization in harbor seals and salmon recovery. Annual Report to National Marine Fisheries Service, NOAA Fisheries, Silver Spring, USA. pp 16.
- Acevedo-Gutiérrez, A. Individual foraging specialization in harbor seals and salmon recovery. Annual Report to National Marine Fisheries Service, NOAA Fisheries, Silver Spring, USA. pp 2.
- 2013 Lance, M., Buzzell, B. & Acevedo-Gutiérrez, A. Spatial and temporal variation in river otter (*Lontra canadensis*) diet and predation on threatened fish species in the San Juan Islands, Washington. Preliminary Report to NOAA/NMFS, Northwest Region, Eastsound, USA. pp 16.

## Alejandro Acevedo-Gutiérrez: SCHOLARSHIP / SERVICE

- Acevedo-Gutiérrez, A. 2012. RUI: Responses of seals and sea lions to increased rockfish density. Final Report to NSF for Award 0550443, Washington, USA. pp 41.
- 2012 Lance, M., Jeffries, S., Buzzell, B. <sup>1</sup> & Acevedo-Gutiérrez, A. Spatial and temporal variation in river otter (*Lontra canadensis*) diet and predation on threatened fish species in the San Juan Islands, Washington. Semi-Annual Report to SeaDoc Society, Eastsound, USA. pp 4.
- 2009 Boren, L, Acevedo, L., Muller, C. G. & Acevedo-Gutiérrez, A. New Zealand fur seal pups at the Ohau Point colony, Kaikoura 2008/2009: numbers, weight, and condition. Progress Report to Department of Conservation, Kaikoura, New Zealand. pp 6.
- Johnson, A.<sup>1</sup> & Acevedo-Gutiérrez, A. Regulation compliance and harbor seal (*Phoca vitulina*) disturbance. Final Report to The Nature Conservancy, Seattle, USA. pp 22.
- 2006 Myhre, S.<sup>1</sup> & Acevedo Gutiérrez, A. Effects of the sea urchin *Diadema antillarum* on coral recovery and benthic community structure, Caribbean Costa Rica. Final Report to Ministerio del Ambiente y Energía, San José, Costa Rica. pp 17.
- Myhre, S.<sup>1</sup> & Acevedo Gutiérrez, A. Species inventory and conservation implications for the near-shore coral reefs of Gandoca-Manzanillo Wildlife Refuge, Costa Rica. Final Report under Resolución # 246-2003-OAFU, Ministerio del Ambiente y Energía, San José, Costa Rica. pp 17.

# **SERVICE**

# WESTERN WASHINGTON UNIVERSITY

## **Department Committees**

z opur omene	
Chair	
2016-2022	Advising Committee. Department of Biology.
2018-2020	Mentor Team, Dr. Arellano. Department of Biology.
2016-2020	Core Competencies ad-hoc Committee. Department of Biology.
2015	Core Competencies ad-hoc Committee. Department of Biology.
2009-2015	BIOL206 Lab Oversight Committee. Department of Biology.
2009-2015	Scholarship Awards Committee. Department of Biology.
2011-2012	Marine Biologist Search Committee. Department of Biology.
2009-2010	Limited-term Lecturers Committee. Department of Biology.
2005-2008	Scholarship Awards Committee. Department of Biology.
2008	Program Coordinator Search Committee. Department of Biology.
Member	
2024-present	Scholarship Committee. Department of Biology.
2023	Mentor Team, Dr. Templeton. Department of Biology.
2023-present	Personnel Committee. Department of Biology.
2023-present	Curriculum & Application Review Committee. SMATE Program.
2023	Mentor Team, Dr. Cooper. Department of Biology.
2022	Summer Undergraduate Research Program Committee. Department of Biology.
2022	Scholarship and Secondary Application Committee. SMATE Program.
2018-2022	Executive Committee. Department of Biology.
2021	Department Manager Search Committee. Department of Biology.
2020-2021	Mentor Team, Dr. Lee. Department of Biology.
2018-2021	Scholarships Committee. SMATE Program.
2018-2019	Graduate Program Committee. Department of Biology.
2016-2020	Mentor Team, Dr. Pollard. Department of Biology.
2016-2018	Budget Committee. Department of Biology.
2016-2017	Mentor Team, Dr. Kodner. Department of Biology.
2014-2015	Assessment Committee. Department of Biology.
2014-2015	Search Committee for Operations Manager. SMATE Program.

2002-2008 2006-2007 2003-2005 2005 2003-2004 2003-2004	Mentor Team, Dr. Kodner. Department of Biology.  Mentor Team, Dr. Brodhagen. Department of Biology.  Mentor Team, Dr. Van Epps. Department of Biology.  BIOL204 Curriculum Review Committee. Department of Biology.  Scheduling Committee. Department of Biology.  Assistant Search Committee. Department of Biology.  Undergraduate Curriculum, Advising and Support Committee. Department of Biology.  Assessment and Outcomes Committee. Department of Biology.  Scholarship Awards Committee. Department of Biology.  SIT Supervisor Search Committee. Department of Biology.  Department Chair Search Committee. Department of Biology.  Scholarships Committee. SMATE Program.	
College Comn		
2023-present 2018-2022 2016-2022 2020 2018-2019 2016-2017 2014-2015 2009-2015 2011	Curriculum and Assessment Committee. College of Science & Engineering. Shannon Point Marine Center Boating Safety Board. Curriculum and Assessment Committee. College of Science & Engineering. Arlan Norman Award Committee, College of Science & Engineering. Search Committee for SMATE/Chemistry faculty. College of Science & Engineering. Search Committee for SMATE/Computer Science faculty. College of Science & Engineering. Strategic Planning Committee Task Force. College of Science & Engineering. Policy, Planning and Budget Council. College of Science & Engineering. College Dean Search Committee. College of Sciences and Technology.	
<b>University Co</b>	mmittees	
2022 2018-2019 2017-2019 2013-2015 2012-2015 2009-2015 2009-2010 2010 2005-2008 2003-2005 2003-2005	Spratlen Grant Selection Committee. Provost Office. Search Committee for SMATE Director. Colleges of Science & Engineering and Woodring. Teacher Education and Academic Departments Commission. Teacher Education and Academic Departments Commission. One World Curriculum Committee. Teaching Curricula Certification Council. Secretary, WWU Chapter of Sigma-Xi Scientific Research Society. Diversity Initiative Task Force. President-Elect, WWU Chapter of Sigma-Xi Scientific Research Society. President, WWU Chapter of Sigma-Xi Scientific Research Society. Scholar's Week Committee.	
Department-Wide Student Support		
2012-present 2012 2006-2010	Written 429 letters of recommendation for 113 people.  Open Research Lab, Back to Bellingham Biology Open House.  Advisor, Biology Club.	
University-Wi	de Support	
2024 2024 2024 2024 2023 2022 2021 2020 2020 2018-2019 2017-2018 2010-2015	Participant, SACNAS Research Meet & Greet.  Mentor, Compass2Campus Ferndale High School Visit.  Mentor, Compass2Campus Mount Vernon High School Visit.  Panelist, SACNAS REU Opportunities.  Panelist, North 2 Western.  Panelist, Honors Students of Color Board, Honors College.  Panelist, Spring STEM Research Opportunities Meet-And-Greet, SACNAS.  Panelist, Celebrating Latinx/Hispanic Heritage Month, Compass2Campus.  Faculty presenter (online video recording), New Faculty Orientation Workshop.  Judge, Graduate Student Symposium.  Judge, Scholar's Week Poster Session.  Judge, Scholar's Week Poster Session.	

2011	Faculty participant, Latino Student Union Networking Night.
2010	Faculty presenter, Career Fair-Migrant Youth Leadership Conference.
2010	Faculty presenter, Discovery Days, Office of Admissions.
2005-2008	Organizer, Sigma-Xi/College of Science & Technology Scholar's Week Poster Session.
2008	Faculty presenter, Discovery Days, Office of Admissions.
2004	Organizer, Sigma-Xi Scholar's Week Poster Session.
2003	Faculty presenter, Classroom Visit Program, Office of Admissions.
2003	Faculty presenter, New Faculty Orientation Workshop.
2002	Faculty presenter, Transfers Advisers Workshop, Office of Admissions. October 2002.

## **PROFESSION**

#### **Panelist**

2016 National Science Foundation.2005 National Science Foundation.

2005 NOAA: National Undersea Research Program.

2003 Harbor Branch Oceanographic Institution: Protect Wild Dolphin Program.

#### **Reviewer** (since arriving to Western)

Journals: 127 reviews

Acta Ethologica Animal Behaviour Animal Conservation Aquatic Biology

Aquatic Conservation: Marine and Freshwater Ecosystems

Aquatic Mammals Behavioral Ecology and Sociobiology

Behavioral Processes
Biological Conservation
Biota Neotropica
Bulletin of Marine Science

Canadian Journal of Zoology Ciencias Marinas

Ecological Applications
Estuarine, Coastal and Shelf Science
Journal of Ecotourism

Endangered Species Research
Frontiers for Young Minds
Journal of Mammalogy

Journal of Natural Resources and Life Sciences Education

Journal of the Marine Biological Association of the United Kingdom

Journal of Theoretical Biology Latin American Journal of Aquatic Mammals

Marine Biodiversity Records Marine Biology

Marine Ecology Progress Series Marine Mammal Science
Marine Ornithology Northwestern Naturalist

Northwest Science Peer J

Polar Research
Progress in Oceanography
Progress in Oceanography
Revista de Biología Marina y Oceanografía
Revista de Biología Tropical

Revista de Ciencias Marinas y Costeras Science Scientia Marina Sustainability

Tourism Management

Proposals: 34 proposals reviewed

Earthwatch Institute National Fish and Wildlife Foundation

National Geographic Society
National Science Foundation
Natural Environment Research Council
Northwest Fisheries Science Center

Oregon Sea Grant

Scholarships: 41 applications reviewed

2022 The Barry Goldwater Scholarship and Excellence in Education Foundation.

#### Abstracts for Conferences: 60 abstracts reviewed

- 2016 Sociedad Mexicana de Mastozoologia Marina: XXXV Conference on Marine Mammals.
- 2012 Sociedad Mexicana de Mastozoologia Marina: XXXII Conference on Marine Mammals.
- 2011 Society for Marine Mammalogy: 19<sup>th</sup> Biennial Conference on Marine Mammals.
- 2005 Society for Marine Mammalogy: 16<sup>th</sup> Biennial Conference on Marine Mammals.
- 2003 Society for Marine Mammalogy: 15<sup>th</sup> Biennial Conference on Marine Mammals.

#### Books/Reports

- 2020 Marine Mammals of the Baltic Sea, Springer Nature.
- 2020 Pacific harbor seal. *In:* Ecology and Conservation of :Pinnipeds in Latin America, Springer Nature (book chapter).
- 2006 Sound Science: Synthesizing Ecological and Socio-Economic Information about the Puget Sound Ecosystem. Puget Sound Partnership.
- 2006 Bahía de los Ángeles: Recursos Naturales y Comunidad. San Diego Natural History Museum.

#### Other

- 2019 Ecology and Conservation of Pinnipeds in Latin America. Springer Nature (book proposal).
- 2012 California Current Integrated Ecosystem Assessment.
- 2011 Lawrence Hall of Science, University of California Berkeley. (Reviewed curriculum).
- 2009 NSF Annual Merit Review.
- 2008 GRE Subject Biology Test, Educational Testing Service. (Developed and reviewed questions.)
- 2007 GRE Subject Biology Test, Educational Testing Service. (Developed and reviewed questions.)

#### **Member of Scientific Committees**

2022-present	Diversity Consulting Group, coordinated by University of Washington Tacoma.
2019-present	Puget Sound Ecosystem Monitoring Program Marine Mammal Working Group.
2021-2022	Pinniped Predation on Salmonids, Washington State Academy of Sciences.
2016-2021	The Next Generation STEM Teacher Preparation in Washington State Diversity
	Working Group.

# STEM Diversity as part of Diversity Consulting Group.

2016-2022 Western Washington University.

2020-2021 Seattle Pacific University.

#### **Invited Workshops**

2019 "Synthesizing scientific knowledge about population dynamics and diet preferences of harbor seals, Steller sea lions and California sea lions, and their impacts on salmon in the Salish Sea". Washington Department of Fish and Wildlife and Department of Fisheries and Oceans Canada, Bellingham, USA. November.

#### **External Reviews**

- 2022 Promotion review of an Associate Professor at University of Washington.
- 2021 Tenure and promotion review of an Assistant Professor at Humboldt State University.
- 2019 Tenure and promotion review of an Assistant Professor at Oregon State University.

#### **Member of External Graduate Committees**

Eva María Fernández Martín. 2018. Fenología de los nacimientos, estado de salud de las crías, y estructura genética poblacional de *Phoca vitulina richardii* en México. Ph.D. thesis, Universidad Autónoma de Baja California, México.

Jenipher Cate. 2013. The effects of tourism on the behaviour of the New Zealand fur seal (*Arctocephalus forsteri*). Ph.D. thesis, University of Canterbury, New Zealand. External Reviewer.

Timothy Markowitz. 2004. Social organization of the New Zealand dusky dolphin. Ph.D. thesis, Department of Wildlife & Fisheries Sciences, Texas A&M University, USA.

#### **Visiting Scholars Hosted**

2023 Katrina Munsterman, PhD student, University of Michigan.

#### **Session Chair at Referred Scientific Conferences**

- 2017 Habitat and Distribution 6. 22<sup>nd</sup> Biennial Conf. Biol. of Marine Mammals, Halifax, October.
- 2005 Behavior IV. 16<sup>th</sup> Biennial Conf. on the Biology of Marine Mammals, San Diego. December.

## **Judge at Referred Scientific Conferences**

2017 Posters, speed talks, and oral presentations. 22<sup>nd</sup> Biennial Conf. Biol. of Marine Mammals, Halifax, October.

# Conferences Organized and Hosted by Research Lab

- 2021 24<sup>th</sup> Meeting of the Soc. for Marine Mammalogy NW Student Chapter (online), Bellingham.
- 2014 16<sup>th</sup> Meeting of the Soc. for Marine Mammalogy NW Student Chapter, Bellingham.
- 2009 13<sup>th</sup> Meeting of the Soc. for Marine Mammalogy NW Student Chapter, Bellingham.
- 2006 10<sup>th</sup> Meeting of the Soc. for Marine Mammalogy NW Student Chapter, Bellingham.

#### **Environmental Policy**

- 1997 Costa Rican Marine Mammal Protection Act. Submitted to The Government of Costa Rica, San José, Costa Rica. pp 19. (In Spanish).
- 1997 Regulations for the Protection of Marine Mammals in Costa Rica. Submitted to The Government of Costa Rica, San José, Costa Rica. pp 18. (In Spanish).
- Regulations for the Protection of Marine Mammals and Seabirds at Isla del Coco, Costa Rica. Submitted to Area de Conservación Marina Isla del Coco, Costa Rica. pp 11. (In Spanish).

#### **Affiliations**

American Association for the Advancement of Science, Member since 1990. Society for Marine Mammalogy, Member since 2003.

## **COMMUNITY**

#### **Science Teacher**

- Dare2Drean Migrant Youth Workers Summer Biology Academy, Western Washington University, Bellingham, WA. June.
- 2022 Dare2Drean Migrant Youth Workers Summer Biology Academy (online), Western Washington University, Bellingham, WA. June-July.
- 2021 Dare2Drean Migrant Youth Workers Summer Biology Academy (online), Western Washington University, Bellingham, WA. July. June-July.
- 2020 Dare2Drean Migrant Youth Workers Summer Biology Academy (online), Western Washington University, Bellingham, WA. July.
- 2020 Susanne Holmes-Webb's 2<sup>nd</sup> grade class, Happy Valley Elementary School, Bellingham, WA. Feb-Mar.
- 2018 Gina Ney's Kindergarten class, Happy Valley Elementary School, Bellingham, WA. Jan-Mar.

#### **Science Mentor**

2020-present Frontiers for Young Minds.

#### **High School Student Research Assistants**

Orly Linder (2019). Sehome High School.

Harbor seal (Phoca vitulina) foraging behavior and river otter diet (Lontra canadensis).

Ashley Davis (2006). Sehome High School.

Response of harbor seals (Phoca vitulina) to increased fish density.

Carrie Woodward (2006). Sehome High School.

Response of harbor seals (Phoca vitulina) to increased fish density.

Amanda Yocum (2006). Sehome High School.

Response of harbor seals (Phoca vitulina) to increased fish density.

## **Mentor of High School Senior Exit Projects**

Rachel Bottles. Mount Vernon High School, Bellingham, WA. October 2019. Hannah Cantrell. Hot Springs High School, Hot Springs, SD. April 2015. Brenna McClellan. Cienega High School, Vail, AZ. September 2014. Kat Hofer. Medical Lake High School, Medical Lake, WA. April 2012.

#### **Research Lab Outreach**

2023 WWU Fall Family Weekend, Bellingham, WA. October.

2021 WWU Fall Family Weekend, Bellingham, WA. October.

#### Other

2002-present	Given 52 talks in English and Spanish to 28 schools and over 1,200 K-12 students and
_	families in Washington State and Mexico on science as a career.
2002-present	Given 17 talks to nine different organizations in the USA and Mexico on marine
	biology.
2002-present	Given 76 interviews to local, regional, national and international outlets, including TV,
	radio, pint and internet, on marine biology and science as a career.
2001-2015	National Board of Directors, Museum of Science & Industry, Tampa, USA.