
AMY MARIE VAN CISE

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EMPLOYMENT

School of Aquatic and Fishery Sciences University of Washington <i>Assistant Professor</i>	Seattle, WA 2022 - present
Northwest Fisheries Science Center, NOAA <i>Research Associate</i>	Seattle, WA 2020 - 2022
North Gulf Oceanic Society <i>Research Associate</i>	Homer, AK 2020 – 2022
Cascadia Research Collective <i>Research Biologist</i>	Olympia, WA 2019 – 2020
Woods Hole Oceanographic Institution <i>Postdoctoral Scholar</i>	Woods Hole, MA 2018 – 2019
Scripps Institution of Oceanography University of California San Diego <i>Ph.D. Candidate</i>	La Jolla, CA 2011 - 2017

EDUCATION

Scripps Institution of Oceanography <i>Ph.D. Biological Oceanography</i> <i>M.S. Marine Biology</i>	La Jolla, CA 2011- 2017
University of New Hampshire <i>B.S. Biology – Marine and Freshwater, Magna cum Laude, Presidential Scholar</i> <i>B.A. English/Journalism, Magna cum Laude, Presidential Scholar</i>	Durham, NH 2000 - 2004

PUBLICATIONS IN PREPARATION

- 1 **Van Cise, AM**, AD Foote, M McCarthy, PA Morin. *In prep.* Full genome sequencing reveals patterns of divergence and admixture in pilot whales (*Globicephala spp.*).

- 15 **Van Cise, AM**, AD Switzer, A Apprill, CD Champagne, ... KM Parsons. *In Review*. Best practices for preserving marine mammal biological samples in the 'omics era. *Marine Mammal Science In Review*.
- 14 Oswald, JN, **AM Van Cise**, A Dassow, T Elliot, M Johnson, A Ravignani, J Podos. 2022. A collection of best practices in the study of systematics, ecology, and behavior using bioacoustic data. *Applied Sciences* 12: 12046.
- 13 Gold, ZJ, AO Shelton, HR Casendino, J Duprey, R Gallego, **AM Van Cise**, ... KM Parsons, RP Kelly. *In Review*. Distinguishing Signal from Noise: Understanding patterns of non-detections to inform accurate quantitative metabarcoding. *Plos One Biology In Review*.
- 12 AO Shelton, ZJ Gold, AJ Jensen, E D'Agnese, EA Allan, **AM Van Cise**, R Gallego, A Ramon-Laca, M Garber-Yonts, K Parsons, R Kelly. 2022. Toward quantitative metabarcoding. *Ecology In press*.
- 11 **Van Cise, AM**, RW Baird, AE Harnish, JJ Currie, SH Stack, T Cullins, AM Gorgone. 2021. Mark-recapture estimates reveal declines in abundance of common bottlenose dolphin stocks in the main Hawaiian Islands. *Endangered Species Research* 45:37-53.
- 10 **Van Cise, AM**, PR Wade, CEC Goertz, K Burek-Huntington, KM Parson, R Hobbs, A Apprill. 2020. Skin microbiome of beluga whales: spatial, temporal, and health-related dynamics. *Animal Microbiome*. 2:39
- 9 Apprill, A, C Miller, **AM Van Cise**, JM U'Ren, MS Leslie, L Weber, RW Baird, J Robbins, S Landry, M Niemeyer, K Rose, A Bogomolni, G Waring. 2020. Host phylogeny shapes marine mammal skin microbiomes. *Royal Society Open Science* 7: 192046.
- 8 **Van Cise, AM**, RW Baird, CS Baker, S Cerchio, D Claridge, R Fielding, BL Hancock-Hanser, J Marrero, KK Martien, A Mignucci, EM Oleson, M Oremus, M Poole, P Rosel, BL Taylor, PA Morin. 2019. Oceanographic barriers, divergence, and admixture: Phylogeography and taxonomy of two putative subspecies of short-finned pilot whale. *Molecular Ecology* 28(11): 2886-2902.
- 7 **Van Cise, AM**, SD Mahaffy, RW Baird, TA Mooney, J Barlow. 2018. Song of my people: Dialect differences among sympatric social groups of Hawaiian short-finned pilot whales. *Behavioral Ecology and Sociobiology* 72:193.
- 6 Hill, MC, AR Bendlin, **AM Van Cise**, A Millete-Winfree, AD Ligon, AC Ü, MH Deakos, EM Oleson. 2018. Short-finned pilot whales (*Globicephala macrorhynchus*) of the Marianas: Individual affiliations, movements, and space use. *Marine Mammal Science* 35(3): 797-824.
- 5 **Van Cise, AM**, KK Martien, SD Mahaffy, RW Baird, DL Webster, JH Fowler, EM Oleson, PA Morin. 2017. Familial social structure and socially-driven genetic differentiation in Hawaiian short-finned pilot whales. *Molecular Ecology* 26(23): 6730–6741.
- 4 **Van Cise, AM**, MA Roch, TA Mooney, RW Baird, J Barlow. 2017. Acoustic differentiation of Shiho-and Naisa-type short-finned pilot whales in the Pacific Ocean. *Journal of the Acoustical Society of America* 141(2): 737-748.
- 3 **Van Cise, AM**, PA Morin, RW Baird, AR Lang, KM Robertson, SJ Chivers, RL Brownell, KK Martien. 2016. Redrawing the map: mtDNA provides new insights into the distribution and diversity of short-finned pilot whales in the Pacific Ocean. *Marine Mammal Science* 32:1177-1199.
- 2 Cammen KM, KR Andrews, EL Carroll, AD Foote, E Humble, JI Khudyakov, M Louis, MR McGowan, MT Olsen, **AM Van Cise**. 2016. Genomic Methods Take the Plunge: Recent Advances in High-Throughput Sequencing of Marine Mammals. *Journal of Heredity* 107(6): 481-495.
- 1 Bagulayan, A, JN Bartlett-Roa, AL Carter, BG Inman, EM Keen, EC Orenstein, NV Patin, KNS Sato, EC Sibert, AE Simonis, **AM Van Cise**, and PJS Franks. 2012. Journey to the center of the gyre: the fate of the Tohoku Tsunami debris field. *Oceanography* 25(2):200–207.

TECHNICAL REPORTS

- 6 **Van Cise, AM**, CS Baker, M Oremus, M Poole, P Rosel, R Fielding, RW Baird, EM Oleson, A Mignucci, S Cerchio, J Marrero, KK Martien, PA Morin. 2017. Global mitogenome and nuclear SNP phylogeography of short-finned pilot whales. Prepared for the U.S. Pacific Fleet Environmental Readiness Office. 20 pp.
- 5 **Van Cise, AM**, PA Morin, RW Baird, EM Oleson, KK Martien. 2016. Relatedness and genetic structure in island-associated and pelagic short-finned pilot whales. Appendix in Hill et al. 2016. Cetacean Monitoring in the Mariana Islands Range Complex, 2015. Prepared for the U.S. Pacific Fleet Environmental Readiness Office. PIFSC Data Report DR-16-01. 36 pp. + Appendix
- 4 Morin, PA, **AM Van Cise**, KK Martien. 2015. Mitogenome phylogeography of short-finned pilot whales in the North Pacific, with reference to the Mariana Islands. Appendix II in Hill et al. 2015. Cetacean Monitoring in the Mariana Islands Range Complex, 2014. Prepared for the U.S. Pacific Fleet Environmental Readiness Office. PIFSC Data Report DR-15-003. 56 pp. + Appendices.
- 3 Martien, KK, MC Hill, **AM Van Cise**, KM Robertson, SM Woodman, L Dollar, VL Pease, EM Oleson. 2014. Genetic diversity and population structure in four species of cetaceans around the Mariana Islands. NOAA-TM-NMFS-SWFSC-536. La Jolla, CA.
- 2 **Van Cise, AM**(ed.). 2011. AMLR 2009/10 Field Season Report: Objectives, Accomplishments and Tentative Conclusions. NOAA-TM-NMFS-SWFSC-47. La Jolla, CA.
- 1 **Van Cise, AM**(ed.). 2009. AMLR 2008/09 Field Season Report: Objectives, Accomplishments and Tentative Conclusions. NOAA-TM-NMFS-SWFSC-445. La Jolla, CA.

INVITED PRESENTATIONS

- 5 **2nd Workshop on eDNA research in marine mammals, 24th Biennial Conference on the Biology of Marine Mammals.** Invited talk: Beyond the barcode: what can fecal DNA tell us about prey stocks, abundance, and more? A test case in Southern Resident killer whales. 2022, West Palm Beach, FL.
- 4 **University of Washington, School of Aquatic and Fisheries Sciences Seminar Series.** Seminar: The role of sociality in ecology, evolution, and conservation. 2022.
- 3 **Oregon State University, Department of Fisheries, Wildlife and Conservation Seminar Series.** Seminar: The 'omics prism: a multi-faceted lens into the evolutionary ecology of cetaceans. 2022.
- 2 **Woods Hole Oceanographic Institution, Biology Department Seminar Series.** Seminar: The role of sociality in ecology, evolution, and conservation. 2020.
- 1 **3rd Workshop on genomic research in marine mammals, 23rd Biennial Conference on the Biology of Marine Mammals.** Invited talk: Through the looking glass: Using microbiomes to peer into cetacean ecology and health. 2019, Barcelona, Spain.

CONTRIBUTED PRESENTATIONS (16, selected shown)

- 9 **Van Cise, AM**, B Hanson, C Emmons, KM Parsons. Beyond the barcode: what can fecal DNA tell us about prey stocks, abundance, and more? A test case in Southern Resident killer whales. Oral Presentation at: 24th Biennial Conference on the Biology of Marine Mammals, 2022, West Palm Beach, FL.
- 8 **Van Cise, AM**, C Matkin, D Olsen, KM Parsons. Using genetic prey barcodes to uncover the diet of Alaska resident killer whales from fecal samples. Oral Presentation at Alaska Marine Science Symposium, 2022, virtual.
- 7 **Van Cise, AM**, P Wade, ... A Apprill. Skin microbiome of beluga whales: spatial, temporal, and health-related dynamics. Oral Presentation at Alaska Marine Science Symposium, 2021 Jan 26-28, virtual conference.
- 6 **Van Cise, AM**, P Wade, ... A Apprill. Through the looking glass: Using microbiomes to peer into beluga health. Oral Presentation at Ocean Sciences, 2020 Feb 16-21, San Diego, CA.
- 5 **Van Cise, AM**, RW Baird, CS Baker, ... PA Morin. Oceanographic barriers, divergence, and admixture: Phylogeography and taxonomy of two putative subspecies of short-finned pilot whale. Oral Presentation at: 23rd Biennial Conference on the Biology of Marine Mammals, 2019 Dec 7-12, Barcelona, Spain.
- 4 **Van Cise, AM**, PA Morin, KK Martien, RW Baird, SD Mahaffy, EM Oleson, TA Mooney, DL Webster, J Barlow. Song of my people: Dialect differences among sympatric socio-genetic groups of Hawaiian short-finned pilot whales. Oral Presentation at: 22nd Biennial Conference on the Biology of Marine Mammals, 2017 Oct 23-27, Halifax, Canada.
- 3 **Van Cise, AM**, KK Martien, RW Baird, SD Mahaffy, EM Oleson, PA Morin. Gene-culture co-diversity: Nuclear SNPs reveal link between social and genetic structure in Hawaiian short-finned pilot whales. Oral Presentation at: Global Biodiversity Genomics Conference, 2017 Feb 21-23, Washington, DC.
- 2 **Van Cise, AM**, KK Martien, RW Baird, EM Oleson, PA Morin. Family Ties: Nuclear SNPs reveal link between social and genetic structure in Hawaiian short-finned pilot whales. Workshop presentation at: 21st Biennial Conference on the Biology of Marine Mammals, 2015 Dec 12-18, San Francisco, CA.
- 1 **Van Cise, AM**, KK Martien, RW Baird, KM Robertson, SJ Chivers, PA Morin. Piloting the Pacific: Population structure in short-finned pilot whales in the Pacific Ocean. Oral presentation at: 20th Biennial Conference on the Biology of Marine Mammals, 2013 Dec 9-13, Dunedin, New Zealand.

PENDING SUPPORT

2023-2025

NSF DEB Evolutionary Processes Cluster
Principal Investigator

\$425,000

FUNDED RESEARCH SUPPORT

2022-2026	ONR Multidisciplinary University Research Initiative Co-author/collaborator	\$4.8M
2021-2023	ONR DEI Initiative Co-author/collaborator	\$255,000
2021-2022	ARPA-E/Marine Biological Laboratory Subaward PI	\$78,197
2019	Marine Alliance for Science and Technology in Scotland Fellowship	£7,450
2018-2019	Woods Hole Oceanographic Institution Postdoctoral Scholar Award	\$96,000

FIELD WORK

Beaked Whale Population Assessment Survey <i>NOAA Northwest Fisheries Science Center</i> <i>Marine mammal observer</i>	Elbow Cay, The Bahamas 2022 May 31 – June 13
Pacific Marine Assessment Program for Protected Species (PacMAPPS) <i>NOAA Alaska Fisheries Science Center</i> <i>Marine mammal observer and photo identification</i>	Gulf of Alaska 2021 July 19 – Aug 27
Hawaiian Odontocete Survey <i>Cascadia Research Collective</i> <i>Marine mammal observer</i>	Kauai, HI 2020 Feb 6 – 18
Humpback Whale Survey <i>NOAA Pacific Islands Fisheries Science Center</i> <i>Marine mammal observer</i>	Mariana Islands 2019 Jan 5 – 24
Hawaii Island Cetacean Assessment Survey (HICEAS) <i>NOAA Pacific Islands Fisheries Science Center</i> <i>Marine mammal observer and biopsy collection</i>	Hawaiian Islands/NWHI 2017 July 4 – Sep 5
Harbor Porpoise Population Assessment Survey <i>NOAA Marine Mammal Lab</i> <i>Marine mammal observer and eDNA collection</i>	SE Alaska 2016 Sep 6 – 21
Collaborative Large Whale Assessment Survey (CLaWS) NOAA Southwest Fisheries Science Center <i>Marine mammal observer and biopsy collection</i>	California Current 2015 Oct 25 – Nov 9
Hawaiian Odontocete Survey <i>SIO/Independent graduate survey</i> <i>Chief Scientist and marine mammal observer</i>	Kona, HI 2015 June 26 – July 6
California Current Cetacean Ecosystem Assessment Survey (CalCurCEAS) <i>NOAA Southwest Fisheries Science Center</i> <i>Passive acoustic technician</i>	California Current 2014 Sep 24 – Oct 18

Hawaiian Odontocete Survey <i>Cascadia Research Collective</i> <i>Marine mammal observer</i>	Kona, HI 2013 Oct 17 – 30
Hawaiian Odontocete Survey <i>Cascadia Research Collective</i> <i>Marine mammal observer</i>	Kauai, HI 2013 July 25 - Aug 3
Hawaiian Odontocete Survey <i>Cascadia Research Collective</i> <i>Marine mammal observer</i>	Kona, HI 2013 May 9 – 29
Hawaiian Odontocete Survey <i>Cascadia Research Collective</i> <i>Marine mammal observer</i>	Kona, HI 2012 Aug 12 – 19
Behavioral Response Survey (ONR BRS) <i>NOAA Southwest Fisheries Science Center Cascadia Research Collective</i> <i>Marine Mammal Observer</i>	Channel Islands 2012 Jul 25 – Aug 9
Antarctic Marine Living Resources Survey (AMLR) <i>NOAA Southwest Fisheries Science Center</i> <i>Zooplankton, phytoplankton, oceanography, seal scat technician Outreach coordinator</i>	Southern Ocean 2011 Feb – Mar
Antarctic Marine Living Resources Survey (AMLR) <i>NOAA Southwest Fisheries Science Center</i> <i>Zooplankton, phytoplankton and fur seal scat technician</i>	Southern Ocean 2010 Jan – Mar
Antarctic Marine Living Resources Survey (AMLR) <i>NOAA Southwest Fisheries Science Center</i> <i>fur seal scat technician</i>	Southern Ocean 2009 Jan - Feb

MENTORSHIP

Graduate Student Mentees:

Role	Name	Dissertation title	Start	Completion
Co-chair PhD	Arial Brewer		2020	ongoing

Graduate Student Committees:

Degree	Committee role	Name	University	Start	Completion
MS	Member	Zach Bengtsson	University of Washington	2021	ongoing
MS	External Evaluator	Nicolas Garzon	Universidad de los Andes	2020	ongoing

Other Mentees:

Elijah Ward, In FISH! Undergraduate intern | **Adrian Reed**, WHOI PEP student | **Hadley Clark**, WHOI Guest Student | **Lianna Montgomery**, WHOI intern | **Shayna Brody**, MAS student mentee, SIO CMBC | **Allison Lee**, MAS student mentee, SIO CMBC | **Tiffany Lowe**, BS intern, UCSD | **Grace Teller**, MS student mentee, SIO | **Alicia**

Amerson, MAS student mentee, SIO CMBC | **Brett Garner**, MAS student mentee, SIO CMBC | **Sarah Urata**, MS intern, UCSD; **Madeline Perez**, intern, High Tech High | **Lisa Valtierra**, intern, High Tech High | **Alaine Ibarreche**, BS intern, University of San Diego

TEACHING

Instructor, University of Washington

Course Name	Course Number	Quarter	Student evaluation scores		
			Response rate	Combined median	Adjusted combined median
Evolutionary Ecology of Marine Mammals	FISH 497	Spring 2023			

Assistant Course Coordinator, “Marine Biodiversity, Conservation and Global Change” Summer 2016

- Assisted in the coordination, implementation, and leadership of a 40hr/week course covering integrative topics related to conservation biology (e.g. biodiversity, economics, governance and policy), as well as a week-long field course on Catalina Island in the Channel Islands.

Seminar Leader, “Genetic relatedness and kinship: data analysis methods” Fall 2014

- Coordinated and co-led a 10-week seminar covering peer-reviewed publications related to the seminar topic.

OUTREACH

Moderator/Coordinator, Experiences of Women in Marine Mammals Science 2022

- Panel to increase visibility around women’s experiences within the Society for Marine Mammalogy
- Attendance > 600 members

Panel Member, Workshop on Women in Marine Mammal Science 2017

- Conference workshop assessing and highlighting the experiences of women in marine mammal science

Outreach and Education Coordinator, “Virtual Research in Antarctica” 2010-2011

- Collaborative partnership between NOAA’s Antarctic Ecosystem Research Division and WhaleTimes, Inc. to provide Antarctic science lessons and materials to classrooms throughout the country, corresponding with the three-month Antarctic research season.
- Coordinated field trips for classrooms in the San Diego Unified School District to visit the SD Natural History Museum and meet Antarctic scientists. Planned and implemented age-appropriate field research activities to be conducted at the Museum.

Peace Corps Wetlands Educator 2005-2007

- Developed and led wetlands education seminars and activities, both in classrooms (ages K-12) and in wetlands, about the ecology, biodiversity, and societal and economic value of local wetland ecosystems.

OTHER EXPERIENCE

Biologist, June 2008 – June 2011

Antarctic Ecosystem Research Division, Southwest Fisheries Science Center, NOAA

- Conducted field work in Antarctica up to two months a year.
- Coordinated field season and travel logistics, managed AERD budget.

- Edited and co-authored the yearly Field Season Report.
- Assisted PIs with laboratory procedures (e.g. cutting and aging fur seal teeth, bomb calorimetry, scat analysis, FAME preparation), data management and analysis as needed.
- Coordinated Division outreach programs, e.g. “virtual” research trips to Antarctica with classrooms throughout the nation, design and implementation of an exhibition at the San Diego Natural History Museum, and hands-on research experiences for young San Diego women.

Peace Corps Volunteer, Sept 2005 – Dec 2007

Paracas National Reserve, San Andres, Peru

- Worked with municipalities, NGOs, and community groups in the buffer zone of Paracas National Reserve to develop and implement natural resource management plans based on the Peruvian national environmental management plan.
- Surveyed local wetlands to determine management need; worked with municipality and community members to develop and implement a wetlands management plan to be included in the local natural resource management plan.
- Coordinated with All-Hands Disaster Response to rebuild schools, irrigation canals, and basic public services in San Andres and neighboring communities after the August 2007 earthquake off the coast of southern Peru.

News Reporter, Aug 2004 - Dec 2004

Gloucester Daily Times, Gloucester, MA

- Wrote up to four news stories a day covering events in the towns of Gloucester, Manchester and Essex.

CURRENT/RECENT SYNERGISTIC ACTIVITIES

Society for Marine Mammalogy Diversity Committee

Charter Member

2018 – present

Women in Marine Mammal Science (WIMMS)

Member

2018 – present

NOAA Team for Inclusion, Diversity and Equity (TIDE)

Working Group Member

2021 – present

Woods Hole Diversity Advisory Committee

Working Group Member

2018 – 2019

Partnership Education Program

Undergraduate Mentor

2018 – 2019

REVIEWER ACTIVITIES

Molecular Ecology | PLOS-One | Marine Ecology | Marine Mammal Science | Journal of the Acoustical Society of America | Aquatic Mammals | Aquatic Conservation | Journal of Heredity | Royal Society Open Science | Molecular Ecology Progress Series