# Cheryl L. Barnes, PhD (she | they)

Assistant Professor, Integrated Marine Fisheries Lab

Coastal Oregon Marine Experiment Station Department of Fisheries, Wildlife, and Conservation Sciences Hatfield Marine Science Center, Oregon State University 2030 SE Marine Science Dr | Newport, OR 97365

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w: cheryl-barnes.github.io

EDUCATION	
PhD, Fisheries – UNIVERSITY of ALASKA FAIRBANKS (UAF) College of Fisheries and Ocean Sciences, Juneau Campus	2019
MS, Marine Science – MOSS LANDING MARINE LABORATORIES (MLML) Degree awarded by San José State University (SJSU)	2015
BS, Biology – SAN DIEGO STATE UNIVERSITY (SDSU) Emphasis: Marine Biology	2006
PROFESSIONAL EXPERIENCE (2006 to Present)	
COASTAL OREGON MARINE EXPERIMENT STATION DEPARTMENT OF FISHERIES, WILDLIFE, AND CONSERVATION SCIENCES OREGON STATE UNIVERSITY [with support from Oregon Dept. of Fish and Wildlife] Assistant Professor in Marine Fisheries	2023-P
COOPERATIVE INSTITUTE for CLIMATE, OCEAN, and ECOSYSTEM STUDIES (CICOES) UNIVERSITY of WASHINGTON – Seattle, WA ALASKA FISHERIES SCIENCE CENTER, NOAA – Seattle, WA ALASKA REGIONAL OFFICE, NOAA – Juneau, AK Research Scientist Postdoctoral Scholar	2022-2023 2020-2022
SCALE BACK CONSULTING, LLC – Anchorage, AK  Principal Investigator	2020-2023
UNIVERSITY of ALASKA FAIRBANKS – Juneau, AK  Research Assistant: Ecological interactions among groundfishes in the Gulf of Alaska  Teaching Assistant: Field Methods in Marine Ecology and Fisheries	2015-2019 2017
CA COLLABORATIVE FISHERIES RESEARCH PROGRAM (CCFRP) – Moss Landing, CA Lead Scientist Volunteer Coordinator Science Crew	2011-2014 2010-2011 2010
CALIFORNIA SEA GRANT – San Diego, CA Extension Program Representative	2010-2014
SAN DIEGO OCEANS FOUNDATION (SDOF) – San Diego, CA Programs and Outreach Director Marine Science Education Program Coordinator	2008-2010 2008
MWR: COMMANDER FLEET ACTIVITIES – Sasebo, Japan Head Lifeguard and Water Safety Instructor Lifeguard	2007-2008 2006-2007

AWARDS AND HONORS		
Chapter Service Award, Alaska Chapter of the American Fisheries Society	2023	
Diversity and Inclusion Service Award, Western Division of the American Fisheries Society	2021	
Top 10 Most Downloaded Papers , Ecological Applications	2020	
W.F. Thompson Award (Best Student Paper from 2018*), American Institute of Fishery Biolo	gists 2019	
Dean's Recognition Award – Outstanding Graduate Student, UAF	2019	
First Place – Student Talk <sup>1</sup> , Western Groundfish Conference	2018	
Second Place – Student Poster <sup>2</sup> , Western Groundfish Conference	2016	
Mirth Award, Western Groundfish Conference	2016	
First Place – Student Poster <sup>3</sup> , Monterey Bay National Marine Sanctuary Symposium	2013	
Dean's List – Honors Recognition, SDSU	2004, 2006	
Superscripts correspond to items in 'PUBLICATIONS' and 'P	resentations'	
Student Travel Awards:		
Wakefield Fisheries Symposium	2015, 2019	
,	2015, 2017, 2018	
	, 2016, 2018	
Western Division of the American Fisheries Society	2017	
CSU Council on Ocean Affairs, Science, and Technology	2014	
International Flatfish Symposium	2014	
GRANTS AND FELLOWSHIPS		
Alaska Regional Office, NOAA Fisheries (co-Pls: J. Pirtle, J. Thorson) – \$100,276	2023	
Alaska Sea Grant Program Development Award (AK Chapter AFS) – \$8,850	2022	
California Sea Grant Program Development Award (WSN) – \$4,000; \$9,999	2021; 2022	
Magnuson-Stevens Act Implementation (Pls: J. Thorson, J. Pirtle, T. Essington) – \$229,306	2020-2022	
Northern Gulf of Alaska Applied Research Award – \$10,000	2018-2019	
Rasmuson Fisheries Research Center Graduate Fellowship – \$78,901	2017-2019	
Pollock Conservation Cooperative Research Center (PI: A. Beaudreau) – \$201,516	2015-2019	
SJSU Associated Students Advocacy Award – \$500	2014	
SJSU Graduate Equity Fellowship – \$3,000	2013-2014	
Santa Monica Seafood's Responsible Sourcing Vendor Partner Grant (CCFRP) – \$15,000	2013-2014	
Clarence F. and Lyle V. Burmahln Scholarship – \$500	2013	
Dr. Earl M. Myers and Ethel M. Myers Oceanographic and Marine Biol. Trust Grant – \$1,500	0 2013	
MLML Scholar Award: Michael Lee Environmental Foundation – \$2,200	2013	
Xiphias Martin Scholarship: John H. Martin Family – \$500	2013	
Lucille and David Packard Foundation Research and Travel Grant – \$1,000	2013	
CSU Council on Ocean Affairs, Science, and Technology Graduate Student Award - \$3,000		
California Sea Grant: Program Development Award (SDOF) – \$9,900	2010	
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#### **PUBLICATIONS**

## Published, In Press, or Accepted

Thorson JT, **Barnes CL**, Friedman ST, Morano JL, and Siple MC. In press. Seven examples of how spatially-varying slope models are essential for species distribution models. Ecogr. Forthcoming.

Brodie S, Smith JA, Muhling BA, Kaplan IC, Barnett LAK, Carroll G, Fiedler P, Bograd SJ, Hazen EL, Jacox MG, Andrews KS, **Barnes CL**, Crozier L, Fiechter J, Fredston A, Haltuch MA, Harvey CJ, Holmes E, Karp MA, Liu OR, Malick MJ, Buil MP, Richerson K, Rooper CN, Samhouri J, Seary R, Selden RL, Thompson AR, Thorson J, Tommasi D, Ward EJ, and Zabel R. 2022. Recommendations for quantifying and reducing uncertainty in projections of species distributions. Glob Change Biol. 28:6586-6601.

## PUBLICATIONS, CONT'D

- **Barnes CL**, Essington TE, Pirtle JP, Rooper CN, Laman EA, Holsman KK, Aydin KY, and Thorson JT. 2022. Climate-informed models benefit hindcasting but present challenges when forecasting species-habitat associations. Ecogr. e06189.
- Dorn MW and **Barnes CL**. 2022. Time-varying predation as a modifier of constant natural mortality for Gulf of Alaska pollock. Fish Res. VSI Natural Mortality. 254(2022):106291.
- Grüss A, Thorson JT, Stawitz CC, Reum JCP, Rohan SK, and **Barnes CL**. 2021. Synthesis of interannual variability in spatial demographic processes supports the strong influence of cold-pool extent on eastern Bering Sea walleye pollock (*Gadus chalcogrammus*). Progr Ocean. 194(2021):102569
- **Barnes CL**, Beaudreau AH, and Yamada RN. 2021. The role of size in trophic niche separation between two groundfish predators in Alaskan waters. Mar Coast Fish. 13:98–113. doi: 10.1002/mcf2.10141
- **Barnes CL**<sup>^</sup>, Beaudreau AH, Dorn MW, Holsman KK, and Mueter FJ. 2020. Development of a predation index to assess trophic stability in the Gulf of Alaska. Ecol Appl. 30(4):e02141. doi:10.1002/eap.2141
- **Barnes CL**\*, Beaudreau AH, Hunsicker ME, and Ciannelli L. 2018. Assessing the potential for competition between Pacific Halibut (*Hippoglossus stenolepis*) and Arrowtooth Flounder (*Atheresthes stomias*) in the Gulf of Alaska. PLoS ONE. 13(12):e0209402.
- **Barnes CL** and Starr RM. 2018. Reproductive tactics of California Halibut (*Paralichthys californicus*): combining spawning season, interspawning interval, and batch fecundity to estimate annual reproductive output for a multiple-batch spawning fish. CalCOFI Rep. 59:102–114.
- Lesyna KM and **Barnes CL** (corresponding author). 2016. Assessment of length- and age-at-maturity for California Halibut (*Paralichthys californicus*), including a histologically-based description of the reproductive cycle. Calif Fish Game. 102(3):79–99.
- **Barnes CL**, Starr RM, and Reilly PN. 2015. Growth, mortality, and reproductive seasonality of California Halibut (*Paralichthys californicus*): a biogeographic approach. CalCOFI Rep. 56:110–118.
- Starr RM, Wendt DE, **Barnes CL**, Marks Cl, Malone D, Waltz G, Schmidt KT, Chiu J, Launer AL, Hall NC, and Yochum N. 2015. Variation in responses of fishes across multiple reserves within a network of marine protected areas in temperate waters. PLoS ONE. 10(3):e0118502.
- Starr RM, Cortés J, **Barnes CL**, Green K, and Breedy O. 2012. Characterization of deepwater invertebrates at Isla del Coco National Park and La Gemelas Seamount, Costa Rica. Int J Trop Biol. 60(3):303–319.

## Submitted or In Review

Kerametsidis G, Thorson J, Rossi V, Álvarez-Berastegui D, **Barnes CL**, Certain G, Esteban A, García E, Jadaud A, Piñeiro S, Vivas M, and Hidalgo M. Submitted. Cross-scale environmental impacts across persistent and dynamic aggregations within a complex population: implications for fisheries management. ICES J Mar Sci. Forthcoming.

#### In Preparation

- **Barnes CL**, Dorn MW, Reum JCP, Essington TE, and Punt AE. In prep. The potential for trophic cascades in an ever-changing ecosystem recently impacted by marine heatwaves.
- Holsman KK, **Barnes CL**, Aydin KY, Thorson JT, Zador S, Barbeaux SJ, Laurel BJ, Hurst TP, and Heintz RA. In prep. Patterns in foraging and energetics of mid-trophic level predators in the Bering Sea.
- **Barnes CL**, Waltz GT, Hamilton SL, Ruttenberg BI, Starr RM, et al. In prep. Synchrony as a measure of resilience for temperate groundfish communities.

#### **PRESENTATIONS** 62-63 ALASKA CHAPTER of the AMERICAN FISHERIES SOCIETY - Fairbanks, AK 2023 — Climate-informed models benefit hindcasting but present challenges for forecasting species-habitat associations Prospective students: new opportunities with the Integrated Marine Fisheries Lab at OSU <sup>61</sup> OREGON CHAPTER of the AMERICAN FISHERIES SOCIETY – Eugene, OR 2023 — Prospective students: new opportunities with the Integrated Marine Fisheries Lab at OSU <sup>59-60</sup> WESTERN SOCIETY OF NATURALISTS – Oxnard, CA 2023 — Climate-informed models benefit hindcasting but present challenges for forecasting species-habitat associations Prospective students: new opportunities with the Integrated Marine Fisheries Lab at OSU 58 ECOSYSTEM STUDIES of SUBARCTIC AND ARTIC SEAS – Seattle, WA 2022 — Climate-informed models benefit hindcasting but present challenges for forecasting species-habitat associations <sup>57</sup> ALASKA CHAPTER of the AMERICAN FISHERIES SOCIETY – Virtual 2022 — Model complexity has contrasting effects for hindcasting and forecasting species responses to climate change <sup>56</sup> WESTERN SOCIETY of NATURALISTS – Virtual 2021 — Model complexity has contrasting effects for hindcasting and forecasting species responses to climate change 55 CENTER for the ADVANCEMENT of POPULATION ASSESSMENT METHODOLOGY - Virtual 2021 Predation as a modifier of constant natural mortality for Gulf of Alaska pollock <sup>54</sup> ALASKA MARINE SCIENCE SYMPOSIUM – Anchorage, AK 2020 — Development of a predation index to assess trophic stability in the Gulf of Alaska 52-53 ALASKA CHAPTER of the AMERICAN FISHERIES SOCIETY – Sitka, AK 2019 — Assessing the potential for competition between Pacific Halibut and Arrowtooth Flounder in the Gulf of Alaska Spatiotemporal variation in consumption of Walleye Pollock by major groundfish predators in the Gulf of Alaska <sup>51</sup> PICES – Victoria, BC 2019 — Ecological interactions among groundfish species in the Gulf of Alaska <sup>50</sup> POLLOCK CONSERVATION COOPERATIVE RESEARCH CENTER – Anchorage, AK 2019 — Ecological interactions among groundfish species in the Gulf of Alaska <sup>49</sup> RASMUSON FISHERIES RESEARCH CENTER – Anchorage, AK 2019 Ecological interactions among groundfish species in the Gulf of Alaska <sup>48</sup> WAKEFIELD FISHERIES SYMPOSIUM – Anchorage, AK 2019 — Comparative resource use by two groundfish species in nearshore SE Alaska <sup>47</sup> ALASKA FISHERIES SCIENCE CENTER, NOAA: GROUNDFISH SEMINAR – Seattle, WA 2018 — Ecological interactions among major groundfish species in the Gulf of Alaska <sup>46</sup> WESTERN DIVISION of the AMERICAN FISHERIES SOCIETY – Anchorage, AK 2018 Assessing the potential for competition between Pacific Halibut and Arrowtooth Flounder in the Gulf of Alaska <sup>45</sup> INTERNATIONAL PACIFIC HALIBUT COMMISSION SEMINAR SERIES – Seattle, WA 2018 Assessing the potential for competition between Pacific Halibut and Arrowtooth Flounder in the Gulf of Alaska <sup>44</sup> POLLOCK CONSERVATION COOPERATIVE RESEARCH CENTER – Anchorage, AK 2018 — Ecological interactions among groundfish species in the Gulf of Alaska <sup>43</sup> RASMUSON FISHERIES RESEARCH CENTER – Anchorage, AK 2018 — Ecological interactions among groundfish species in the Gulf of Alaska <sup>42</sup> UNIVERSITY OF ALASKA FAIRBANKS: AQUATIC FOOD WEB ECOLOGY – Juneau, AK 2018 Making ecological inferences from fisheries data <sup>41</sup> WESTERN GROUNDFISH CONFERENCE – Monterey, CA 2018 — A comparative assessment of resource use by P. Halibut and Arrowtooth Flounder throughout the Gulf of Alaska <sup>1</sup> <sup>40</sup> WESTERN SOCIETY OF NATURALISTS – Tacoma, WA 2018 — The potential for competition between Pacific Halibut and Arrowtooth Flounder in the Gulf of Alaska

### PRESENTATIONS, CONT'D <sup>39</sup> ALASKA CHAPTER of the AMERICAN FISHERIES SOCIETY – Fairbanks, AK 2017 — A comparative assessment of resource use by P. Halibut and Arrowtooth Flounder throughout the Gulf of Alaska <sup>38</sup> WESTERN DIV. of the AMERICAN FISHERIES SOCIETY: STUDENT COLLOQUIUM – McCall, ID 2017 A comparative assessment of resource use by P. Halibut and Arrowtooth Flounder from nearshore waters of SE Alaska <sup>37</sup> ALASKA MARINE SCIENCE SYMPOSIUM – Anchorage, AK 2017 Calculating an index of predation to improve the stock assessment for Walleye Pollock in the Gulf of Alaska <sup>36</sup> POLLOCK CONSERVATION COOPERATIVE RESEARCH CENTER – Anchorage, AK 2017 — Ecological interactions among groundfish species in the Gulf of Alaska <sup>35</sup> ALASKA MARINE SCIENCE SYMPOSIUM – Anchorage, AK 2016 Calculating an index of predation to improve the stock assessment for Walleye Pollock in the Gulf of Alaska 33-34 POLLOCK CONSERVATION COOPERATIVE RESEARCH CENTER – Anchorage, AK 2016 — Developing an index of predation to improve the assessment of Walleye Pollock in the Gulf of Alaska — Ecological interactions among groundfish species in the Gulf of Alaska 32 UNIVERSITY of ALASKA SOUTHEAST – Juneau, AK 2016 — Introduction to AK Fisheries Seminar: Pacific Halibut biology, ecology, management <sup>30-31</sup> WESTERN GROUNDFISH CONFERENCE – Newport, OR 2016 Growth, mortality, and reproductive seasonality of California Halibut: a biogeographic approach Calculating an index of predation to improve the stock assessment for Walleye Pollock in the Gulf of Alaska<sup>2</sup> <sup>29</sup> WESTERN SOCIETY of NATURALISTS – Monterey, CA 2016 A comparative assessment of resource use by Pacific Halibut and Arrowtooth Flounder from nearshore waters of Southeast Alaska: results from a small-scale field study <sup>27-28</sup> AMERICAN FISHERIES SOCIETY: ALASKA CHAPTER – Homer, AK 2015 — Effects of demography, trophic interactions, and the environment on major groundfish species in the Gulf of Alaska — Exploring environmental and demographic drivers of resource overlap among Pacific Halibut, Arrowtooth Flounder, and Walleye Pollock in the Gulf of Alaska <sup>26</sup> ALASKA CHAPTER of the AMERICAN FISHERIES SOCIETY: STUDENT SYMPOSIUM – Juneau, AK 2015 — Growth, mortality, and reproductive seasonality of California Halibut: a biogeographic approach <sup>25</sup> WAKEFIELD FISHERIES SYMPOSIUM – Anchorage, AK 2015 — Growth, mortality, and reproductive seasonality of California Halibut <sup>23-24</sup>CA COLLABORATIVE FISHERIES RESEARCH PROGRAM – Half Moon Bay & Moss Landing, CA 2014 — Research objectives, data collection, analyses, and project results (training workshop) — MPA monitoring and other project results from 2013 (participant workshop) <sup>22</sup> INTERNATIONAL FLATFISH SYMPOSIUM – Cle Elum, WA 2014 — Age, growth, and reproductive potential of California Halibut <sup>21</sup> MARINE: OCEANS COLLOQUIUM – Moss Landing, CA 2014 Reproductive biology of California Halibut: results from the Central Coast <sup>20</sup> MONTEREY BAY NAT'L MARINE SANCTUARY SYMP: SANCTUARY CURRENTS – Seaside, CA 2014 — Reproductive biology of California Halibut: results from the Central Coast <sup>19</sup> MOSS LANDING MARINE LABORATORIES, OPEN HOUSE SEMINAR – Moss Landing, CA 2014 — Flatfish fecundity: evaluating the reproductive nature of a prolific spawner in and around Monterey Bay <sup>18</sup>MPA COLLABORATIVE NETWORK 2014 — Key findings from monitoring Monterey Bay's marine protected areas <sup>16-17</sup> WESTERN GROUNDFISH CONFERENCE – Victoria, Canada 2014 — MPA monitoring: more than just the latest and greatest in marine conservation trends — Reproductive biology of California Halibut: results from the Central Coast

PRESENTATIONS, CONT'D				
<sup>15</sup> WESTERN SOCIETY of NATURALISTS – Tacoma, WA		2014		
Reproductive biology of California Halibut: evidence from the Central Coast				
13-14 CA COLLABORATIVE FISH	ERIES RESEARCH PROG	RAM – Half Moon Bay	& Moss Landing, CA	2013
<ul> <li>Research objectives, data collection, analyses, and project results (training workshop)</li> </ul>				
<ul> <li>MPA monitoring and other pro</li> </ul>	oject results from 2012 (parti	cipant workshop)		
<sup>12</sup> CALIFORNIA DEPARTMENT	<sup>12</sup> CALIFORNIA DEPARTMENT of FISH and WILDLIFE – Belmont, CA			2013
— The California Collaborative Fisheries Research Program: objectives, results, and interpretations			rpretations	
<sup>11</sup> MONTEREY BAY NAT'L MARINE SANCTUARY SYMP: SANCTUARY CURRENTS – Seaside, CA		2013		
<ul> <li>Reproductive characteristics of</li> </ul>	f California Halibut off centr	al California <sup>3</sup>		
<sup>10</sup> MOSS LANDING MARINE LABORATORIES, OPEN HOUSE SEMINAR – Moss Landing, CA			s Landing, CA	2013
<ul> <li>Spawning characteristics of Ca</li> </ul>	alifornia Halibut in Monterey	<sup>,</sup> Bay		
9 WATSONVILLE AREA TEENS	CONSERVING HABITAT	S PROGRAM – Watson	ville, CA	2013
<ul> <li>Reproductive characteristics of</li> </ul>	f California Halibut off centr	al California, with compari	sons to the S. California B	ight
<sup>8</sup> WESTERN SOCIETY of NATUI	RALISTS – Oxnard, CA			2013
<ul> <li>Reproductive biology of Califo</li> </ul>	ornia Halibut: evidence from	the Central Coast		
<sup>6-7</sup> CA COLLABORATIVE FISHE	RIES RES. PROG. – Half I	Moon Bay & Moss Land	ling, CA	2012
<ul> <li>Research objectives, data colle</li> </ul>		-	_	
<ul> <li>MPA monitoring and other pro</li> </ul>	oject results from 2011 (parti	cipant workshop)		
<sup>5</sup> EXPANDING YOUR HORIZO	NS NETWORK – Monter	ey, CA		2012
— Fishing for our future: fisheries	s biology and resource mana	gement		
<sup>4</sup> MONTEREY BAY NAT'L MAR	INE SANCTUARY SYMP:	SANCTUARY CURREN	NTS – Seaside, CA	2012
<ul> <li>Collaborative fisheries research</li> </ul>	h: a transition from data-poo	or to data-rich management		
<sup>3</sup> MOSS LANDING MARINE LA	BORATORIES, OPEN HO	DUSE SEMINAR – Moss	Landing, CA	2012
— Fishing for science: the California	rnia Collaborative Fisheries F	Research Program		
<sup>2</sup> WESTERN GROUNDFISH CO	NFERENCE – Seattle, WA	4		2012
<ul> <li>Collaborative fisheries research</li> </ul>	h: a transition from data-poo	r to data-rich management		
<sup>1</sup> SAN DIEGO BAY SYMPOSIU <i>N</i>	0			2009
— SDOF's White Seabass Restora	ation Project and its relevand	ce to San Diego Bay		
MENTORSHIP				
Graduate Students (c Committee	Member)			
M. Bargas (MS, 2023-P)	,			
Craduate and Post Passalaura	ata Dasaarah Assistants			
Graduate and Post-Baccalaure J. Antus (2009)	H. Heath (2013-14)	S. Robinson (2011)	A. Sloan (2014)	
H. Delgado-Nordmann (2016)	G. Hunt (2015)	K. Ros (2010)	71. 310an (2014)	
Undergraduate Research Assis	tants			
A. Aines (2013)	D. Duncan (2013)	Z. Johanson (2016)	R. Rand (2011-12)	
D. Anaya (2013)	A. Feck (2009)	A. Kamber (2017)	M. Schmidt (2012)	
K. Askeland (2010) M. Bargas (2017)	A. Gile (2015) N. Giraud (2009)	L. Knopp (2009) K. Kuhn (2008)	<ul><li>E. Schurig (2013)</li><li>S. Saadat (2010-11)</li></ul>	
K. Beck (2014)	C. Giordano (2014)	J. Li (2020-21)	P. Saengcharoentrakul	(2021)
E. Bjork (2008)	A. Hedger (2009)	S. Link (2016)	N. Siababa (2014)	
S. Briley (2008)	E. Hetherington (2009)	S. Lomonico (2014)	E. Stollmeyer (2013)	
K. Brown (2016) A. Chorazyczewski (2014)	F. Holman (2022-P) C. Homer (2018)	M. Mairz (2010) R. McCollough (2013)	H. Wayner (2016-17) D. Weir (2009)	
C. Doles (2013)	C. Hope (2010)	P. Muehlenbeck (2012)	·	

PROFESSIONAL SERVICE AND OUTREACH ACTIVITIES			
SCIENTIFIC AND STATISTICAL COMMITTEE, PAC Oregon Department of Fish and Wildlife Appoir		CIL 2023-P	
PEER REVIEWER  Bulletin of the S California Academy of Sciences Ecosphere Exxon Valdez Oil Spill Trustee Council Fisheries Research	Fishery Bulletin Frontiers in Marine Science ICES Journal of Marine Science Journal of Applied Ecology	ll of Fish Biology ONE	
NEWPORT PRIDE, Planning Committee and Four	nding Board of Directors	2022-P	
AMERICAN FISHERIES SOCIETY, ALASKA CHAP Peer Mentor; Professional Mentor Diversity, Equity, and Inclusion Committee (Cha Annual Meeting Planning Committee Program, Awards (co-Chair), and Entertainment Executive Committee, Student Representative	air) 2017, 2019, 20 Committees	2020-P 2018-P 021, 2022, 2023 2018-2019 2015-2017	
AMERICAN FISHERIES SOCIETY, WESTERN DIVI Diversity and Inclusion Committee; Annual Mee		2018-P; 2021	
AMERICAN FISHERIES SOCIETY, Diversity, Equity		2021-2023	
WESTERN GROUNDFISH CONFERENCE, Steering		2019-2022	
WESTERN SOCIETY OF NATURALISTS (WSN), Di			
SKYPE A SCIENTIST, Volunteer		2018-2022	
ALASKA FISHERIES SCIENCE CENTER (AFSC, NC	OAA), Gender Equity Working Group	2021	
SOUTHEAST ALASKA LGBTQIA+ ALLIANCE Board Member; Volunteer		019; 2015-2019	
UNIVERSITY OF ALASKA FAIRBANKS			
Assistant Professor in Quantitative Fisheries Sear Graduate Academic and Advising Committee Professional Development Workshop Organizer		2018-2019 2017-2019 2018	
SITKA SOUND SCIENCE CENTER, Scientist in the	e Schools Volunteer	2018	
PARTNERSHIP FOR INTERDISCIPLINARY STUDIES OF COASTAL OCEANS, Volunteer 2013-2014, 2018			
ALASKA FISHERIES SCIENCE CENTER (NOAA), B	ottom Trawl Survey Volunteer	2017	
MOSS LANDING MARINE LABORATORIES Curriculum Committee Donations Committee Chair <sup>a</sup> ; Advisor <sup>b</sup> Associated Student Body Vice President	<sup>a</sup> 2011-20	2012-2014 12; <sup>b</sup> 2013-2014 2011-2012	
TEACHER ENHANCEMENT PROGRAM, Marine S	Science Educator	2013	
WATSONVILLE AREA TEENS CONSERVING HAE		2012-2013	
EXPANDING YOUR HORIZONS NETWORK, Yo	ung Women in Science Volunteer	2011-2013	
MONTEREY BAY AQUARIUM, DSCVR Young W	omen in Science Mentor	2011, 2013	
SAN DIEGO STATE UNIVERSITY, Graduate Resea	arch Assistant	2010	
SAN DIEGO SCIENCE AND ENGINEERING FAIR,	Professional Society Judge	2009-2010	
SAN DIEGO COASTKEEPER, Outreach and Comr	munity Event Intern	2005-2006	
UNDERGRADUATE RESOURCE OPPORTUNITIE	ES CENTER CSU MONTEREY BAY, Mer	ntor 2014	

SELECT ASSOCIATIONS, TRAININGS, AND CERTIFICATIONS	
500 QUEER SCIENTISTS, Member	2017-P
ALASKA CLIMATE INTEGRATED MODELING (ACLIM), Collaborator	2020-P
ALASKA MARINE SAFETY EDUCATION ASSOC, Cold Water Survival; Skiff Operator	2015, 2017
AMERICAN ACADEMY OF UNDERWATER SCIENCES, Scientific Diver; Member	2010-P
AMERICAN FISHERIES SOCIETY, Western Division and Alaska Chapter Member	2015-P
AMERICAN INSTITUTE OF FISHERY RESEARCH BIOLOGISTS, Member	2019-P
AMERICAN RED CROSS	2006-2015
CPR, AED, First Aid, and Administering Emergency O <sub>2</sub> Lifeguard and Water Safety Instructor; Fundamentals of Instructor Training	2006-2013
AMERICAN STATISTICAL ASSOCIATION, Alaska Chapter Member	2019-P
CA DEPARTNENT OF BOATING AND WATERWAYS, Boating Education Certificate	2011
CA OCEAN SCIENCE TRUST, CA Citizen Science Initiative Participant	2014
CAREERSTONE GROUP, Managing Up Workshop Participant	2021
COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI)	
Working with the IACUC; Field and Lab Animal Researchers	2015-2018
ECOLOGICAL SOCIETY OF AMERICA, Member	2019-P
EPSCoR, Mindful Leadership: Creating a Diverse and Inclusive UA Workshop Participant	2018
EQUAL EMPLOYMENT OPPORTUNITY COMM., Beyond the Binary Workshop Participa	int 2021
GULF OF ALASKA CLIMATE INTEGRATED MODELING (GOACLIM), Collaborator	2022-P
MORALE, WELFARE, AND RECREATION, COMM. FLEET ACT, Power Boat Operator	2007
MPA COLLABORATIVE NETWORK, Participant	2011-2014
NAT'L ASSOC. OF UNDERWATER INSTRUCTORS  Master SCUBA Diver; Nitrox Diver	2010
NATIONAL CENTER FOR ECOLOGICAL ANALYSIS AND SYNTHESIS (NCEAS) Reproducible Research Techniques for Synthesis Workshop Participant	2019
NATIONAL COUNCIL FOR BEHAVIORAL HEALTH, Mental Health First Aid USA	2018
NOAA PRIDE EMPLOYEE RESOURCE GROUP, Member	2020-2023
oSTEM, Member	2019-P
PROFESSIONAL ASSOCIATION OF DIVING INSTRUCTORS	
Open Water, Advanced Open Water, Rescue Diver; Dive Master 2006, 200 REEF CHECK CALIFORNIA	07, 2009; 2010
UPC, Algae, Invertebrate, and Fish Surveyor	2010
REEF ENVIRONMENTAL EDUCATION FOUNDATION (REEF)	2010
Marine Algal, Invertebrate, and Expert Fish Surveyor	2008
SACNAS, Member	2022-P
SACNAS NATIVE INITIATIVES, Creating More Inclusive Spaces in STEM Workshop Partic	ipant 2021
TRIMBLE, Intermediate Mapping and GIS Certificate	2011
UNITED STATES COAST GUARD, Small Vessel Operator	2015
WESTERN SOCIETY OF NATURALISTS, Member	2010-P