

Cheryl L. Barnes (she | her)

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EDUCATION

PhD, Fisheries | UNIVERSITY of ALASKA FAIRBANKS (UAF) 2019

- College of Fisheries and Ocean Sciences, Juneau Fisheries Division

- Dissertation: Ecological interactions among important groundfishes in the Gulf of Alaska

MS, Marine Science | MOSS LANDING MARINE LABORATORIES (MLML) 2015

- Degree awarded by San José State University (SJSU)

- Thesis: Growth, mortality, and reproductive potential of California Halibut (*P. californicus*)

BS, Biology [Emphasis: Marine Biology] | SAN DIEGO STATE UNIVERSITY (SDSU) 2006

PROFESSIONAL EXPERIENCE, 2006 to present

UNIVERSITY of WASHINGTON – Seattle, WA 2020 to present

ALASKA FISHERIES SCIENCE CENTER, NOAA – Seattle, WA

ALASKA REGIONAL OFFICE, NOAA – Anchorage & Juneau, AK

Postdoctoral Scholar, Joint Institute for the Study of the Atmosphere and Ocean (JISAO)

UNIVERSITY of ALASKA FAIRBANKS – Juneau, AK

Teaching Assistant, Field Methods in Marine Ecology and Fisheries

2017

CA COLLABORATIVE FISHERIES RESEARCH PROGRAM (CCFRP) – Moss Landing, CA

Lead Scientist

2011 to 2014

Volunteer Coordinator

2010 to 2011

Science Crew

2010

CALIFORNIA SEA GRANT EXTENSION PROGRAM – San Diego, CA

Program Representative

2010 to 2014

SAN DIEGO OCEANS FOUNDATION (SDOF) – San Diego, CA

Programs and Outreach Director

2008 to 2010

Marine Science Education Program Coordinator

2008

MWR: COMMANDER FLEET ACTIVITIES – Sasebo, Japan

Head Lifeguard and Water Safety Instructor

2006 to 2008

GRANTS AND FELLOWSHIPS

Northern Gulf of Alaska Applied Research Award – \$10,000 2018 to 2019

Rasmuson Fisheries Research Center Graduate Fellowship – \$78,901 2017 to 2019

Pollock Conservation Cooperative Research Center, PI: A. Beaudreau – \$201,516 2015 to 2019

SJSU Associated Students Advocacy Award – \$500 2014

SJSU Graduate Equity Fellowship – \$3,000 2013 to 2014

Santa Monica Seafood's Responsible Sourcing Vendor Partner Grant (CCFRP) – \$15,000 2013 to 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 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 2013

California Sea Grant: Program Development Grant (SDOF) – \$9,900 2010

AWARDS AND HONORS

American Institute of Fishery Biologists – W.F. Thompson Award (Best Student Paper from 2018)*	2019
UAF Dean’s Recognition Award – Outstanding Graduate Student	2019
Wakefield Fisheries Symposium – Student Travel Award ⁷	2019, 2015
Western Groundfish Conference – First Place: Student Talk ⁴	2018
American Fisheries Society, AK Chapter – Student Travel Award ¹	2018, 2017, 2015
Western Groundfish Conference – Student Travel Award ²	2018, 2016, 2014, 2012
American Fisheries Society – Western Division Student Travel Award ³	2017
Western Groundfish Conference – Mirth Award ⁵ ; Second Place, Student Poster ⁶	2016
CSU Council on Ocean Affairs, Science, and Technology – Student Travel Award ⁹	2014
International Flatfish Symposium – Student Travel Award ⁸	2014
Monterey Bay National Marine Sanctuary Symposium – First Place, Student Poster ¹⁰	2013
SDSU Dean’s List – Honors Recognition	2006, 2004

Superscripts correspond to those in the ‘SELECTED PRESENTATIONS’ section.

PUBLICATIONS

- Barnes CL**, Essington TE, Pirtle JP, Thorson JT, *et al.* In prep. Dynamic models inform species responses to climate change in high latitude systems. Forthcoming.
- Holsman KK, **Barnes CL**, Aydin K, Thorson JT, *et al.* In prep. Patterns in foraging and energetics of mid-trophic level predators in the Bering Sea. Forthcoming.
- Grüss A, Thorson JT, Stawitz CC, Reum JCP, Rohan SK, and **Barnes CL**. Accepted. 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*.
- 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**, 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, DE Wendt, **Barnes CL**, Marks CI, 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.
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SELECT PRESENTATIONS

ALASKA MARINE SCIENCE SYMPOSIUM – Anchorage, AK	2020
— Development of a predation index to assess trophic stability in the Gulf of Alaska	
PICES (North Pacific Marine Science Organization) – Victoria, BC	2019
— Assessing the potential for competition between Pacific Halibut (<i>H. stenolepis</i>) and Arrowtooth Flounder (<i>A. stomias</i>) in the Gulf of Alaska	
— Development of a predation index to assess trophic stability in the Gulf of Alaska	
ALASKA FISHERIES SCIENCE CENTER, NOAA: GROUND FISH SEMINAR – Seattle, WA	2018
— Ecological interactions among major groundfish species in the Gulf of Alaska	
AMERICAN FISHERIES SOCIETY: WESTERN DIVISION – Anchorage, AK ¹	2018
WESTERN GROUND FISH CONFERENCE – Seaside, CA ²	2018
WESTERN SOCIETY of NATURALISTS – Tacoma, CA	2018
— Assessing the potential for competition between Pacific Halibut (<i>H. stenolepis</i>) and Arrowtooth Flounder (<i>A. stomias</i>) in the Gulf of Alaska	
UNIVERSITY of ALASKA FAIRBANKS: AQUATIC FOOD WEB ECOLOGY – Juneau, AK	2018
— Guest Lecture: Making ecological inferences from fisheries data	
AMERICAN FISHERIES SOCIETY: ALASKA CHAPTER – Fairbanks, AK ¹	2017
AMERICAN FISHERIES SOCIETY: WESTERN DIV. STUDENT COLLOQUIUM – McCall, ID ³	2017
— A comparative assessment of resource use by Pacific Halibut (<i>H. stenolepis</i>) and Arrowtooth Flounder (<i>A. stomias</i>) throughout the Gulf of Alaska	
UNIVERSITY of ALASKA SOUTHEAST: INTRO. to ALASKA FISHERIES – Juneau, AK	2016
— Guest Lecture: Pacific Halibut – biology, ecology, management	
ALASKA MARINE SCIENCE SYMPOSIUM – Anchorage, AK	2016
WESTERN GROUND FISH CONFERENCE – Newport, OR ²	2016
— Calculating an index of predation to improve the stock assessment for Walleye Pollock (<i>G. chalcogrammus</i>) in the Gulf of Alaska ⁴	
WESTERN GROUND FISH CONFERENCE – Newport, OR ^{2, 5, 6}	2016
AMERICAN FISHERIES SOCIETY: ALASKA CHAPTER, STUDENT SYMPOSIUM – Juneau, AK	2015
WAKEFIELD FISHERIES SYMPOSIUM – Anchorage, AK ⁷	2015
— Growth, mortality, and reproductive seasonality of California Halibut (<i>P. californicus</i>): a biogeographic approach ⁶	
AMERICAN FISHERIES SOCIETY: ALASKA CHAPTER – Homer, AK ²	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	
CALIF. COLLAB. FISH. RES. PROG. – Half Moon Bay & Moss Landing, CA	2014, 2013, 2012
— Research objectives, data collection, and project results (training workshop)	
— MPA monitoring and other project results (participant workshop)	
INTERNATIONAL FLATFISH SYMPOSIUM – Cle Elum, WA ⁸	2014
— Age, growth, and reproductive potential of California Halibut (<i>P. californicus</i>)	

SELECT PRESENTATIONS, cont'd

MONTEREY BAY NAT'L MAR. SANCTUARY SYMP: SANCTUARY CURRENTS – Seaside, CA — Reproductive biology of CA Halibut (<i>P. californicus</i>): results from the Central Coast	2014
MOSS LANDING MARINE LABORATORIES: OPEN HOUSE SEMINAR – Moss Landing, CA — Flatfish fecundity: evaluating the reproductive nature of a prolific spawner in and around Monterey Bay	2014
WESTERN GROUND FISH CONFERENCE – Victoria, Canada ² — MPA monitoring: more than just the latest and greatest in marine conservation trends	2014
WESTERN SOCIETY of NATURALISTS – Tacoma, WA ⁹ — Reproductive biology of California Halibut (<i>P. californicus</i>): results from the Central Coast	2014
CALIFORNIA DEPARTMENT of FISH and WILDLIFE – Belmont, CA — California Collaborative Fisheries Research Prog: objectives, results, and interpretations	2013
MONTEREY BAY NAT'L MAR. SANCTUARY SYMP: SANCTUARY CURRENTS – Seaside, CA	2013
MOSS LANDING MARINE LABORATORIES: OPEN HOUSE SEMINAR – Moss Landing, CA — Reproductive characteristics of California Halibut (<i>P. californicus</i>) off central California, with comparisons to the Southern California Bight ¹⁰	2013
MONTEREY BAY NAT'L MAR. SANCTUARY SYMP: SANCTUARY CURRENTS – Seaside, CA	2012
WESTERN GROUND FISH CONFERENCE – Seattle, WA ² — Collaborative fisheries research: a transition from data-poor to data-rich management	2012
SAN DIEGO BAY SYMPOSIUM – San Diego, CA — SDOF's White Seabass Restoration Project and its relevance to San Diego Bay	2009

PROFESSIONAL SERVICE

AMERICAN FISHERIES SOCIETY, ALASKA CHAPTER Diversity, Equity, and Inclusion Committee (Chair)	2018 to present
Programs, Awards (co-Chair), and Entertainment Committees	2018 to 2019
Executive Committee Member, Student Subunit President	2015 to 2017
AMERICAN FISHERIES SOCIETY, WESTERN DIVISION Diversity & Inclusion Committee	2018 to present
SKYPE A SCIENTIST, Volunteer	2018 to present
VARIOUS UNIVERSITIES, Undergraduate Student Mentor Mentees: A. Aines (2013), D. Anaya (2013), K. Askeland (2010), M. Bargas (2017), K. Beck (2014), E. Bjork (2008), S. Briley (2008), K. Brown (2016), A. Chorazyczewski (2014), C. Doles (2013), D. Duncan (2013), A. Feck (2009), A. Gile (2015), C. Giordano (2014), A. Hedger (2009), E. Hetherington (2009), C. Homer (2018), C. Hope (2010), Z. Johanson (2016), A. Kamber (2017), L. Knopp (2009), K. Kuhn (2008), Janelle Li (2020-21), S. Link (2016), S. Lomonico (2014), M. Mairz (2010), R. McCollough (2013), P. Muehlenbeck (2012), R. Rand (2011-12), M. Schmidt (2012), E. Schurig (2013), S. Saadat (2010-11), P. Saengcharoentrakul, N. Siababa (2014), E. Stollmeyer (2013), H. Wayner (2016-17), D. Weir (2009)	2008 to present
WESTERN GROUND FISH CONFERENCE, Steering Committee	2019 to present
WESTERN SOCIETY of NATURALISTS, Diversity, Equity, & Inclusion Committee	2018 to present

PROFESSIONAL SERVICE, cont'd

UAF COLLEGE of FISHERIES and OCEAN SCIENCES, Student Rep. Search Committee, Assistant Professor in Quantitative Fisheries	2018 to 2019
UAF GRADUATE ACADEMIC and ADVISING COMM., Graduate Student Rep.	2017 to 2019
UAF COLLEGE of FISHERIES and OCEAN SCIENCES, Graduate Research Volunteer Projects: M. Callahan (2017-2019), M. Chan (2016), D. Duncan (2016-2017), M. Kosma (2016-19), D. Michrowski (2015), J. Nielsen (2015)	2015 to 2019
COLLEGE of FISHERIES and OCEAN SCIENCES (UAF) PROF. DEV. WKSHP, Organizer	2018
SITKA SOUND SCIENCE CENTER, Scientist in the Schools Volunteer	2018
PARTNERSHIP for INTERDISCIPLINARY STUDIES of COASTAL OCEANS, Volunteer	2018; 2013-14
ALASKA FISHERIES SCIENCE CENTER (NOAA), Trawl Survey Volunteer	2017
UNIVERSITY of YORK, Graduate Student Mentor Mentees: H. Delgado-Nordmann (2016), G. Hunt (2015)	2015 to 2016
MOSS LANDING MARINE LABORATORIES Curriculum Committee, Student Representative	2012 to 2014
Graduate Research Volunteer: J. Chiu (2014), J. Duryea (2010-14) R. Fields (2013-14), S. Kennedy (2010), A. Launer (2010-14), E. McHuron (2010), K. Schmidt (2010-14)	2010 to 2014
Donations Committee, Advisor ^a and Chair ^b	^a 2013-14, ^b 2011-12
Associated Student Body, Vice President	2011 to 2012
MPA COLLABORATIVE NETWORK, Member	2011 to 2014
VARIOUS AFFILIATIONS, Post-Baccalaureate Mentor Mentees: J. Antus (2009), H. Heath (2013-14), S. Robinson (2011), K. Ros (2010), A. Sloan (2014)	2008 to 2014
TEACHER ENHANCEMENT PROGRAM, Marine Science Educator	2013
WATSONVILLE AREA TEENS CONSERVING HABITATS PROGRAM, Science Mentor	2012 to 2013
EXPANDING YOUR HORIZONS NETWORK, Young Women in Science Volunteer	2011 to 2013
MONTEREY BAY AQUARIUM, DSCVR Young Women in Science Mentor	2011 and 2013
SAN DIEGO STATE UNIVERSITY, Graduate Research Assistant	2010
SAN DIEGO SCIENCE & ENGINEERING FAIR, Professional Society Judge	2009 to 2010
SAN DIEGO COASTKEEPER, Outreach and Community Event Intern	2005 to 2006

CERTIFICATIONS, PROFESSIONAL ASSOCIATIONS, AND WORKSHOP PARTICIPATION

500 WOMEN SCIENTISTS, Alaska Chapter Member	2017 to present
ALASKA MARINE SAFETY EDU. ASSOC: Cold Water Survival, Skiff Operator	2017, 2015
AMERICAN ACADEMY of UNDERWATER SCIENCES: Scientific Diver, Member	2010 to present
AMERICAN FISHERIES SOCIETY, WESTERN DIV. & ALASKA CH.: Member	2015 to present
AMERICAN INSTITUTE OF FISHERY RESEARCH BIOLOGISTS, Member	2019 to present
AMERICAN RED CROSS	
CPR, AED, First Aid, Administering Emergency O ₂	2006 to 2015
Lifeguard and Water Safety Instructor; Fundamentals of Instructor Training	2006 to 2008
AMERICAN STATISTICAL ASSOCIATION: Alaska Chapter Member	2019 to present
CA DEPT. of BOATING and WATERWAYS: Boating Education Certificate	2011
CA OCEAN SCIENCE TRUST: CA Citizen Science Initiative Workshop	2014
COLLABORATIVE INST. TRAINING INITIATIVE	
Working with the IACUC; Field and Lab Animal Researchers	2015 to 2018
ECOLOGICAL SOCIETY of AMERICA, Member	2019 to present
EPSCoR, Mindful Leadership: Creating a Diverse and Inclusive UA Workshop	2018
MORALE, WELFARE, and RECREATION COMM. FLEET ACT: Power Boat Operation	2007
NAT'L ASSOC. of UNDERWATER INSTRUCTORS: Master SCUBA Diver and Nitrox Diver	2010
NAT'L CENTER for ECOLOGICAL ANALYSIS and SYNTHESIS (NCEAS):	
Reproducible Research Techniques for Synthesis Workshop	2019
PROFESSIONAL ASSOC. of DIVING INSTRUCTORS	
Open Water, Advanced Open Water, and Rescue Diver; Dive Master	2006 to 2010
REEF CHECK CALIFORNIA: UPC, Algae, Invertebrate, and Fish Surveyor	2010
REEF ENVIRON. EDU. FDN: Marine Algal, Invertebrate, and Expert Fish Surveyor	2008
TRIMBLE: Intermediate Mapping and GIS Certificate	2011
UNDERGRAD. RES. OPPORTUNITIES CTR, CSU MONTEREY BAY: Mentor Workshop	2014
VIRGINIA INSTITUTE of MARINE SCIENCE: Workshops Led by John M. Hoenig	2015
14 Principles of Graphing Data; The Easy Way to Write a Scientific Paper	
WESTERN SOCIETY of NATURALISTS: Member	2010 to present
