

Curriculum Vitae 5/25/2023

Name Parker MacCready
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Education

1982 B.A. (Architecture) Yale University
1986 M.S. (Engineering Science) California Institute of Technology
Advisor: Dr. T. Y.-T. Wu
1991 Ph.D. (Physical Oceanography) University of Washington
Thesis: Frictional Slowing of Rotating, Stratified Flow along a Sloping Boundary
Advisor: Dr. Peter B. Rhines

Employment

2022- Research Professor, University of Washington
2009-2022 Professor, University of Washington
2013-2014 Visiting Researcher, Microsoft Research (4 months)
2001-2009 Associate Professor, University of Washington
1994-2001 Research Assistant Professor, University of Washington
1993-1994 Research Scientist, University of Washington
1991-1993 Postdoctoral Fellow, University of Miami
1987-1991 Research and Teaching Assistant, University of Washington
1986-1987 Research Assistant, California Institute of Technology
1977-1985 Aeronautical Engineering Technician, AeroVironment Inc.

Honors and Awards

2022 Named Leo Maddox Endowed Professor of Oceanography, UW
2021 Elected Fellow of the American Geophysical Union
2017 David Chapman Lecture, WHOI
2006 COFS Distinguished Graduate Teaching Award
2005 Donald R. Pritchard Award for the outstanding Physical Oceanography paper published in the journal *Estuaries* during the last 2 years
2005 H. Burr Steinbach Visiting Scholar for Physical Oceanography, WHOI
1997-2002 Office of Naval Research/University of Washington Scholar of Oceanography Award (with Mike Gregg, SECNAV/CNO Chair of Oceanography)
1991-1993 Rosenstiel Post-Doctoral Fellowship, University of Miami

1989 Outstanding Student Paper Award, American Geophysical Union, Ocean Sciences

University Service

School of Oceanography

2019-2021 Member, Faculty Council
2014-2016 Chair, PO Faculty Search Committee (2 separate searches)
2012-2016 Member Big Data Committee
2010-2016 Member, Barnes Replacement Committee, and Science Oversight Committee
2006-2010 Faculty Council (at-large member, chair of Expertise Subcommittee)
2004-2005 Member, Strategic Planning Committee
2003 Member, Open House Committee
2002 Organized Oceanography Seminar Series on Coastal and Estuarine Studies
1996-1999 Member, Academic Affairs Committee
1995-1996 Member, Faculty Council

University

2016 Chair, Program on the Environment Director Search Committee
2013-2014 Member, SAFS Program Review Committee
2012 Member, SAFS Director Search Committee
2011 Member, Program on the Environment Director Search Committee
2008-2009 Member, College of the Environment Vision & Governance Committee
2004-2010 Member, Program on the Environment Governing Board/Executive Steering Committee/Advisory Board (Chair 2004-2005, 2005-2006, Executive Committee member 2008-2010)
2000 Speaker, Honor Student Invitational (UW Admissions Office)

Professional Offices, Awards, Service

National Committees and Related Activities

4/2023-26 Member: NOAA OCNMS Advisory Committee
4/2022 NOAA OA-HAB Proposal Review Panel Member
2022- NOAA IOOS Cloud Steering Committee, Member
2018- Member, NANOOS Governing Council Board
2014- Member, Technical Working Group for NOAA West Coast Ocean Forecast System (WCOFS)
2012-13 Member, Conference Committee, and session organizer for Gordon Conference on Coastal Ocean Circulation, June 2013
2006-2007 Member, Organizing Committee for a workshop (11/2006 La Jolla) on "Climate Impacts on the California Current Ecosystems"

2006-2008	PECS 2006 (Physics of Estuaries and Coastal Seas) Conference Co-organizer with David Jay.
2004-2005	Member, Conference Committee for Gordon Conference on Coastal Ocean Circulation, June 2005
2004	CoOP Benthic Exchange Workshop - Organizing Committee member
2003-2008	CoOP (Coastal Ocean Processes) Scientific Steering Committee member
1997	Speaker and participant, NSF APROPOS Workshop (Advances and Primary Research Opportunities in Physical Oceanography Studies)
Various years	Panelist for National Science Foundation proposal review

Washington State

2/2023-	Member: Science Advisory Committee (SAC) for the Willapa-Grays Harbor Estuary Collaborative (WGHEC) 2/2023-
2020-2022	Member, Puget Sound Partnership Environmental Metrics Technical Advisory Committee
2015-2020	Member, Salish Sea Marine Survival Project Technical Team
2012-	Member, PSEMP Modeling Workgroup
2008-2012	Member, Project Advisory Committee and Model Technical Advisory Group, Puget Sound DO Modeling Project, WA Ecology.
2004	Scientific advisory group member, Puget Sound Center for Urban Bay Research, Tacoma WA.
2003	Scientific Review Panel for a marine sewage outfall near Seattle (King County DNR, WA Ecology).
1997	Invited Panelist, Scientific Review for LOTT (Lacey Olympia Tumwater Thurston) Budd Inlet Sewage study, Washington State Dept. of Ecology
1995-1998	Washington State Dept. of Ecology (reviewing annual data reports)

Professional society

2016	Co-convener of session at Salish Sea Ecosystem Conference
2006-	Member PECS Steering Committee
2015	Convener of a session at the Coastal Dynamics Gordon Conference
2012	Co-convener two sessions at Ocean Sciences (Feb)
2008	Co-convener Fall AGU Special Session, " Tidal Processes in Coastal and Estuarine Waters " (Ming Li, convener).
2008	Co-convener, Ocean Sciences Meeting Special Session, "Dynamics of Estuarine Circulation and River Plumes: from Process Studies to Predictive Models" (Ming Li, convener).
2007	Member, Pritchard Award Selection Committee for Estuarine Research Federation
2006	Co-organizer (David Jay lead) PECS Conference, Astoria, OR
2005	Co-convener, Estuarine Research Federation 2005 Meeting Special Session, "Estuarine - coastal ocean exchange of water, energy, and waterborne materials:

- innovative methods, and /or high-resolution observations or modeling” (Chunyan Li, convener, Bob Chant, co-convener).
- 2004 Convener, AGU Fall Meeting Special Session, “Interdisciplinary River Plume Studies,” (Bob Chant, co-convener).
- 2003 Convener, Estuarine Research Federation 2003 Meeting Special Session, "Estuarine Turbulence" (Rocky Geyer and Stephen Monismith, co-conveners)
- 2002-2003 Program Committee Member for Estuarine Research Federation 2003 Meeting
- 2000 Convener, AGU Fall Meeting Special Session: "Estuarine Circulation, Mixing, and Modeling" (Rocky Geyer, co-convener)
- 2000 Convener, AGU Ocean Sciences Special Session: "Flow over Rough Topography" (Kurt Polzin, co-Convener)

Editorial & Reviewer Services

- 2012- Editorial Board Member, *Encyclopedia of Puget Sound*
- 2011-2013 Editor, *Journal of Physical Oceanography*
- 2003-2010 Associate Editor, *Journal of Physical Oceanography*
- 2006-2008 Lead Guest Editor for special volume of *Continental Shelf Research* from PECS 2006 (Physics of Estuaries and Coastal Seas) conference.
- Reviewer for marine-related divisions of NSF, NOAA, EPA, CALFED, California Sea Grant, and CFCSA (Canadian), among others.
- Reviewer for numerous journals, including: *Continental Shelf Research*, *Deep-Sea Research*, *Eos*, *Estuaries*, *Journal of Fluid Mechanics*, *Journal of Geophysical Research*, *Journal of Marine Research*, *Journal of Physical Oceanography*, *Limnology and Oceanography*, *AGU Coastal and Estuarine Studies Series*, *Antarctic Journal*, and *ASCE Journal of Waterway, Port, Coastal and Ocean Engineering*, *Nature Geosciences*

Invited Talks

- 2023 Public talk for Pacific County Science Conference
- 2023 UCLA AOS Seminar
- 2022 Ocean Sciences Meeting
- 2021 UBC PO Seminar
- 2020 U. of Rhode Island Seminar
- 2020 NOAA CMMB Seminar
- 2020 NOAA Olympic Coast National Marine Sanctuary Advisory Council
- 2020 Washington OA Center video for AGU
- 2019 Public Talk “News and Brews,” Olympia, WA
- 2019 Plenary Talk at Long Island Sound Research Conf., Long Island, NY
- 2019 Seminar at Univ. of Connecticut
- 2019 Public Talk at Shellfish Growers Conference, Hood Canal, WA
- 2019 Public Talk at Sound Waters Conference, Whidbey Island, WA
- 2018 Seminar at Inst. of Ocean Sci., Sydney, BC

2018 Mooers Symposium on Prediction, Mt. Hood, OR
 2018 WA Ecology Nutrient Reduction Forum, Tacoma, WA
 2018 NSF Coastal Modeling Workshop, Raleigh, NC
 2017 David Chapman Lecture, WHOI
 2017 Pacific Coast Shellfish Growers Association Mtg., Mt. Hood
 2017 Oregon State University
 2017 Presentation for: NOAA Ecoforecasting Meeting
 2017 Public talk for the Bainbridge Island Oatmeal Club, Winslow
 2016 Presentation for Olympic Coast National Marine Sanctuary Advisory Council
 2016 Public talk at UW Olympic Natural Resources Center, Forks, WA
 2016 Public talk for Climate Science on Tap series, Peddler Brewing Co., Seattle, WA
 2016 Public talk at Ada's Technical Books, Seattle, WA
 2016 Talk for a middle school math class, Olympia
 2016 Talk at Salish Sea Ecosystem Conference, Vancouver BC
 2016 Sound Waters Talk, Whidbey Island, WA
 2015 Salish Sea Marine Survival Workshop Talk, Vancouver, BC
 2015 UW Water Seminar
 2015 Marine Resources Advisory Council Talk, Pt. Townsend, WA
 2015 Warnemünde Turbulence Days Talk, Germany
 2015 Science Café, Tacoma, WA
 2015 Washington Ocean Acidification Center Symposium, UW
 2015 Gordon Research Seminar, Keynote Talk
 2015 Advancing Tools for Modeling, Forecasting and Managing for *Vibrio* spp. in Washington State, workshop presentation (April)
 2015 The Evergreen State College, PLATO Seminar on Ocean Modeling
 2015 School of Oceanography Seminar, Career Overview
 2014 Puget Sound Tides and Eddies, Pt. Townsend Marine Center
 2014 Microsoft Faculty Summit, Redmond, WA, "Ocean Modeling: *Using the Cloud to Connect Science & the Public*"
 2013 Meeting of WA Marine Resource Councils, Montesano, to discuss results of DNR Marine Spatial Planning (Mar): "Using Computer Models to Simulate the Circulation & Ecosystem of Pacific Northwest Coastal Ocean"
 2013 Virginia Institute of Marine Science: 2 talks (Mar) "Modeling Biogeochemistry and Harmful Algal Blooms on the Pacific Northwest Coast" & "Direct Measurement of the Bottom Pressure Field Creating Form Drag on a Headland"
 2013 Workshop on Cyber Infrastructure for the Physical Sciences - Earth, Ocean, Sky and Space, Hawaii (Feb) "Ocean Modeling: How can new computational tools *transform* our science and how we communicate it?"
 2012 Salish Sea Marine Survival of Salmon and Steelhead, Bellingham (Nov)
 "Historical trends of Puget Sound near-surface stratification, from CTD casts at 4 locations"
 2012 NCAR Climate & Global Dynamics Seminar, Boulder, CO (Oct) "An overview of the physics of estuarine circulation, with biogeochemical implications"

2012 UW Water Symposium (Apr) "Physical, biological, and geochemical impacts of riverine systems in marine and estuarine environments"

2012 Chesapeake Bay & Puget Sound Health Workshops: Integrating Climate and Environmental Information with Disease Surveillance to Address Pathogens and Algal Toxins of Concern to Public Health (Seattle, Mar)

2011 GRC Coastal Ocean Modeling (Jun) "Modeling the estuarine exchange flow of the Salish Sea ...and other estuaries"

2011 UC Berkeley Environmental Engineering Seminar: "Physical Causes and Environmental Consequences of the Estuarine Circulation of Puget Sound" (Apr)

2011 CHOICE High School, Shelton, WA (Jan)

2010 & '11 South Sound Estuary Association: guest lecturer for Estuary Education Workshop (4-6 grade teachers) LOTT, Olympia (Aug)

2010 Ocean Sciences "Fundamental Scales of Estuary-Coast Exchange" (Feb)

2010 Rutgers University "Fundamentals of Estuarine Circulation" (Feb)

2009 GRC Coastal Ocean Circulation "Form Drag Mechanisms in Tidal Flow"

2008 Garrett Symposium "Apparent Form Drag in Tidal Flow Past a Headland"

2007 Estuarine Research Federation "Estuarine Adjustment"

2007 Building Bioregional Literacy Conference, Pacific Lutheran University, WA (lecture on teaching regional environmental science for non-scientists)

2007 University of Victoria "Energetics of Coastal and Estuarine Upwelling"

2007 EGU Conference, Vienna, "Energetics of Coastal and Estuarine Upwelling"

2007 Stanford "Energetics of Coastal and Estuarine Upwelling"

2006 Nisqually National Wildlife Refuge, "River of life: Why the brown Columbia makes the Pacific green"

2006 Oregon State University, "Energy considerations in a river plume"

2006 Ocean Sciences Meeting, "Form Drag on Coastal Flows"

2005 WHOI Steinbach lectures, [1] Form Drag, [2] River Plumes, [3] Estuaries

2004 Highline Community College, "Three Tree Point"

2003 Texas A&M University, School of Oceanography Departmental Seminar

2003 EGS-AGU Joint Meeting, Nice, France, "Observations & Modeling of Form Drag on Rough Coastal Topography"

2002 Bergen University, Norway, [1] "Boundary Effects on Ocean Circulation," and [2] "Flow over rough coastal topography"

2002 Ocean Sciences AGU Meeting, "Estuarine Adjustment and Sensitivity"

2000 EPOC Meeting, "Stratified Flow Along a Rough Slope: Separation Drag and Wave Drag"

1999 JGOFS Data Workshop #2, "A Diagnostic Budget of Heat and Nitrate in the Southern Ocean Mixed Layer: The Canonical View from Climatologies"

1998 Puget Sound Research '98 Conference, "Numerical Circulation Modeling as a Tool for Harmful Algae Bloom Research and Prediction"

1997 NSF APROPOS Conference, "In Shallow Water: Basic vs. Applied Science," a 'respondant' talk for Coastal session

1996 University of Chicago, "Meridional Circulation across the ACC"

1992 Florida State University, "Flow into the Deep Caribbean"

Professional society membership

American Geophysical Union
American Meteorological Society
Estuarine Research Federation
Pacific Estuarine Research Society

Field Work

1992 RV Columbus Iselin, Caribbean Sea
1996- Strait of Juan de Fuca, Willapa Bay, Puget Sound
2001-2002 Three 10-day cruises in Puget Sound (NSF)
2003, 6, 9, 12, 19 FHL Summer School, experiments around Puget Sound
2006 RV Wecoma, WA & OR Shelf
2009-2010 Three Tree Point (NSF PPOD)
2013 RV TG Thompson, WA Shelf

Instructional Activities

Courses Taught

Undergraduate:

Course #	Title [credits] (co-Instructor)	Date	Enroll.	Rating/Adj.
OCN 320	Coastal Oceanography [5] (Ogston)	2018 (W)	43	3.4/3.7
OCN 320	Coastal Oceanography [5] (Ogston)	2017 (W)	34	4.1/4.2
OCN 320	Coastal Oceanography [5] (Ogston)	2016 (Sp)	35	4.6/4.4
HA&S 220	Dead Zones around America [5]	2005 (F)	23	4.2
HA&S 220	Sci. & Politics of Sewage in PS [5]	2002 (F)	19	4.6
HA&S 222	Sewage, Science, and Society [5]	2001 (Sp)	18	4.9
GenSt 197h	Tides, Twisters and Gyres [2] (Rhines)	1998 (W)	14	3.9

Graduate:

Course #	Title [credits] (co-Instructor)	Date	Enroll.	Rating/Adj.
CEWA 599E	Estuarine Hydrodynamics [4] Horner-Devine	2023 (W)	6	
OCN 506A	Effective Computing	2020 (Sp)	22	4.4/4.3
OCN 590A	Estuarine & Coastal Fluid Dyn. [9] (Geyer)	2019 (Su)	15	5.0/4.7
OCN 507/480	Puget Sound Oceanography [3] Keister	2015 (W)	22	4.5/4.6
BIOL 533A	Estuarine & Coastal Fluid Dyn. [9] (Geyer)	2012 (Su)	15	4.9
OCN 512/ATM S 509	Geophysical Fluid Dynamics I [4]	2012 (W)	13	4.1
OCN 506/497	Puget Sound Oceanography [3] Keister	2011 (W)	9+5UG	4.1

OCN 511/AMATH-ATM S 505 Intro. to Fluid Dyn. [4]	2009 (F)	28	4.3
OCN 590A Estuarine & Coastal Fluid Dyn. [9] (Geyer)	2009 (Su)	13	4.9
OCN 506/497 Puget Sound Oceanography [3] Keister	2009 (W)	12+4UG	4.1
OCN 511/AMATH-ATM S 505 Intro. to Fluid Dyn. [4]	2007 (F)	29	3.7
OCN 589 Coastal & Estuarine Fluid Dyn. [9] Geyer	2006 (Su)	13	(NR)
OCN 512/ATM S 509 Geophysical Fluid Dynamics I [4]	2006 (W)	17	4.7
OCN 539 Bio-Physical Interactions [1] (Grünbaum)	2004 (W)	9	3.9
OCN 578 Estuarine & Coastal Fluid Dyn. [9] (Geyer)	2003 (Su)	12	(NR)
OCN 501 Estuarine Circ. & Mixing [3] (Gregg)	1999 (W)	7	4.23
OCN 501 Estuarine Circ. & Mixing [3] (Gregg)	1996 (F)	4	4.2
OCN 569 Dynamics of Estuaries [3] (Gregg)	1995 (F)	5	4.1
OCN 548 Dynamics of Estuaries [3] (Gregg)	1994 (F)	7	3.85

Undergraduate Research Advising

Marissa Leatherman – lead and copper effluent modeling 2020

Bridget Ovall - Model-Observation Comparisons 2018-2019

Bradley Bartos – Model-Observation Comparisons 2016-2017

Amber Giaccone – Time series analysis 2016

Campbell Glass - Analysis of Upwelling Indices 6/2013-2015

Ross DiJulio - Tsunami Debris Modeling 2012-2013

Cameron Sparr - Salish Sea Modeling, Spring 2010- (Mary Gates Fellowship 2011)

Rachel Faye Lipsy - Chesapeake Bay Interpretive Buoy System, F2009-W2010

Chelsea Funis - PoE Capstone 2009

Graduate Students Advised

Member, Committees for (in option) current

Hillary Scannell	PhD	2019-2020	reading Committee
Elizabeth Brasseale	MS	2014-2016	
Jake Steinberg	PhD	2013-2020	reading committee
Shuang Zhang	PhD	2012-2014	reading committee
Hayley Dosser	PhD	2010-2015	
Thomas Connolly	PhD	2007-2012	reading committee
Amy MacFadyen	PhD	2005-2008	reading committee
Jonathan Kellogg		2004-2007	
Eleanor Williams Frajka		2002-2007	
Amanda Babson	PhD	1999-2006	reading committee
Andrew Chiodi	MS	1998-2003	
Neil Banas	PhD	1998-2005	reading committee
Alana Althaus	MS	1998	
Sean Schenk	MS	1997-1999	
Leif Thomas	PhD	1997-2003	reading committee
Jonathan Lilly	MS	1996-1997	
Sim Larkin	PhD	1996-2000	reading committee

Liz Elliott		1996-1997	
Steve Goodson	MS	1996-1997	
Gabe Vecchi	MS	1996-1997	
Jen MacKinnon	PhD	1996-2002	
Xuemei Zhang		1995-1997	
Jody Klymak	PhD	1995-2001	reading committee
Fritz Stahr	PhD	1994-1998	reading committee

Member, Committees for (out of option or School)

<u>Amy Wyeth (Bio Ocn)</u>		<u>2022-</u>	
<u>Ben Roberts (CEE)</u>		<u>2022-</u>	
Sam Kastner (CEE) GSR		2019-2020	
Ken Hughes (U. Victoria, BC) PhD		2018	reading committee
Lindsay Alma (SAFS) GSR PhD		2019-2022	
Erik Fredrickson (MG&G) PhD		2017-2023	reading committee
Hannah Glover (MG&G) PhD		2017-2022	
<u>Rose Wade (MG&G)</u>	<u>MS</u>	<u>2019-</u>	
<u>Evan Lahr (MG&G)</u>	<u>MS</u>	<u>2020-</u>	
<u>Haila Schultz (BioOcn)</u>		<u>2020-</u>	
Margaret Siple (SAFS) GSR PhD		2017	
Katie Beaumont (MG&G)		2016-2017	
Isaiah Bolden (ChemOcn) PhD		2016-2020	
Robin McLachlan (MG&G) PhD		2015-2020	
Anthony Poggioli (CEE) PhD		2015	
Qiang Sun (U. Conn.)		2014-2015	
Christine Stawitz (QERM) GSR		2014-2018	
Maggie McKeon (CEE)		2011-2016	
Emily Eidam (MG&G)		2012-2016	
Zheng Liu (Atm Sci) GSR		2012	
Maria Aristizabal (Rutgers) PhD		2011-2013	
Chris Jones (AMath) GSR PhD		2011-2013	
Liz Tobin (BioO)	PhD	2010-2014	
Yeping Yuan (CEE)	PhD	2010-2012	
Eva Dusek (SAFS) GSR PhD		2008-2012	
Joshua Jacobs (AMath) GSR		2008-2102	
Jihwan Kim (AMath) GSR PhD		2008-2014	
Carey McGilliard (SAFS) GSR PhD		2008-2012	
Kristen Lee (MG&G) PhD		2007-2013	
Fred Goetz (SAFS) GSR PhD		2006-2016	
Nate Hyde (OHSU, Oregon) MS		2006-2007	reading committee
Kathryn Shamberger (Chem O)		2006-2011	
Mary Hunsicker (SAFS) PhD		2005-2009	
Eli Gurarie (QERM) GSR PhD		2005-2008	
D. Preston Martin (MG&G)		2005	

Bob Hawley (ESS) GSR		2004	
Tansy Clay (BioO)	PhD	2003-2008	
Nathalie Hamel (SAFS) GSR		2003-2009	
Susanne Menden-Deuer (BioO)	PhD	2003-2004	
Beth Mullenbach (MG&G)	PhD	2000-2002	
Cynthia Cudaback (Geophys.)	PhD	1998	
Micaela Schnitzler (BioO)	MS	1998	
Carol Lee (BioO)	PhD	1998	
Jim Barnard (Mech. Eng.)	PhD	1995-2000	reading committee

Chair, Committee for

<u>Erin Broatch</u>	<u>MS</u>	<u>2018- (NSF)</u>
<u>Aurora Leeson</u>		<u>2022- (King County Wastewater)</u>
		<u>(CEE, co-advised with Alex Horner-Devine)</u>
<u>Dakota Mascarenas</u>		<u>2022- (King County Wastewater)</u>
		<u>(CEE, co-advised with Alex Horner-Devine)</u>

Chair, Committees for Graduate Students Advised in Past

Elizabeth Brasseale	MS, PhD	2016-2020
Hally Stone (w/Neil Banas)	MS, PhD	2014-2020
Jamie Shutta	MS	2010-2012
Sally Warner	MS, PhD	2005-2012
Ryan McCabe	MS, PhD	2000-2007 (w/ Barb Hickey for PhD)
Wayne Martin	MS, PhD	1999-2008
Tiangang Yu		1998-99
Julian Douglass		1996-97
Dawn Ring		1996

Postdoctoral Associates Advised

<u>Kate Hewett</u>	<u>2022-</u>
<u>Jilian Xiong</u>	<u>2022-</u>
Linghan Li	2016-2017
Sarah Giddings	2011-2012 (now faculty at UCSD)
Dave Sutherland	2009-2010 (now faculty at Univ. of Oregon)
Yonggang Liu	2006-2008 (now at Univ. S. Florida)
Neil Banas	2005-2008 (now faculty at U. of Strathclyde, UK)
Kate Edwards	2000-2002
Geno Pawlak	1998-2000 (now faculty at UCSD)

Funded Research

NSERC (Canada) Blue Carbon as a Canadian Climate Change Solution: Modelling the Mitigation Potential of Kelp Under Future Climate Change Scenarios, 1/1/2022-12/31/2023, \$920k (1 mo.), (PI: Baum, Singh)

King County Wastewater: Puget Sound Nutrients Research Fellowship, 4/1/2022-9/30/2025, \$384,595 [need to check final dates and amount], (0 mo.), (PI: Horner-Devine, Brett UW CEE)

ONR MURI: MMARINeDNA: Marine Mammal Remote detection” via INnovative environmental DNA sampling, 5/01/2022-4/30/2025, \$6,121,308 (2 mo.), (PI: Ryan Kelly UW)

ONR: Subsurface acoustic ducts due to salinity gradients in coastal oceans: Oceanographic component of a joint acoustics experiment on the Washington shelf, 4/15/2021-4/14/2024, \$2,858,617, (5 mo.), (PI: Harcourt APL)

Fisheries & Oceans Canada (DFO): Blue Carbon as a Canadian Climate Change Solution: Modelling the Mitigation Potential of Kelp Under Future Climate Change Scenarios, 1/1/2022-12/31/2023, \$13,136 (1 mo.), (PI: Hansi Singh UVic)

“LiveOcean Model Enhancement and Transition to Operations” (MacCready lead PI) NOAA COMT (Coastal Ocean Modeling Testbed), 9/1/2021-8/31/2024, \$899,407 (6 mo.)

“Beyond Salt: Effects of estuarine circulation and mixing timescales on biogeochemistry” (MacCready PI) NSF, 1/1/2022-12/31/2024 , \$685,684 (9 mo.)

NOAA-IOOS: NANOOS HAB Supplement, 6/1/2020-5/31/2021, \$51,849 (2 mo.) (same again in 2021-2022)

NOAA-IOOS: Cloud Sandbox, 6/1/2019-5/31/2022, \$20,000 (0 mo.)

Modeling Support, \$40k/year, from NOAA through NANOOS-IOOS. 6/1/2015-5/31/2021. (same again in 2021-2022)

“Ocean Acidification Forecast Model”, (MacCready PI, CoPI McCabe), \$150,000, WA State through the Washington Ocean Acidification Center, 7/1/2019-6/30/2021. (2 mo.). (same again in 2021-2022)

“Advancing the West Coast Ocean Forecasting System through Assessment, Model Development, and Ecological Products” (Chris Edwards, UCSC, PI) NOAA, MacCready portion \$135,000, 9/1/2018-7/31/2021 (2.5 mo.)

“Collaborative Research: Using Salinity Variance to Link Estuarine Mixing and Exchange Flow,” (Geyer WHOI, MacCready) NSF, \$468,978 (PM portion), 9/15/2017-8/31/2020 (6 mo.)

“High-Resolution Modeling of Hood Canal,” ONR, \$76,948, 12/15/2017-11/30/2019.

“Larval transport modeling evidence of European Green Crab source populations,” WA Sea Grant/WDFW, 3 mo. of RA support for Elizabeth Brasseale, Winter Term 2018.

“Ocean Acidification Forecast Model”, (MacCready PI, CoPIs McCabe & Siedlecki, JISAO), \$150,000, WA State through the Washington Ocean Acidification Center, 7/1/2017-6/30/2019. (2 mo.).

“MERHAB: An early warning system for *Pseudo-nitzschia* HABs on Pacific Northwest outer-coast beaches” (Neil Banas, U Strathclyde, PI) NOAA, MacCready portion \$340,661, 7/1/2016-6/30/2021, (8 mo.), plus supplement for years 4 and 5: \$62,000.

“Physics Linking Shelf Circulation to Estuarine Inflow” NSF, \$577,956, 9/16/2016-9/15/2019 (9 mo.)

“Evaluating Local Impacts of Ocean Acidification on the U.S. West Coast” (Newton, Klinger, Siedlecki, MacCready, Deutsch) Wendy Schmidt foundation, \$150,000, 09/01/2016-08/31/2018 (2 mo.)

“Larval Rockfish Dispersal Modeling” NOAA-NMFS, \$30,000, 10/1/2016-9/30/2017 (0.5 mo.)

“Integration of US West Coast Operational Coastal and Ocean Models” (Alex Kurapov, OSU, PI) NOAA, total \$111,785, 9/1/2015-8/31/2018 (MacCready 2 mo.)

“Collaborative Research: Constraints on Interseismic Deformation Offshore Oregon from Calibrated Continuous Pressure Records” (William Wilcock UW PI), NSF, \$229,863, 3/1/2016-2/28/2018 (MacCready 2 mo.)

“Ocean Acidification Forecast Model”, (MacCready PI, CoPIs McCabe & Siedlecki, JISAO), \$150,000, from WA State through the Washington Ocean Acidification Center, 9/1/2015-6/30/2017. (MacCready 1 mo.).

“Linking Puget Sound primary production to stratification and atmospheric drivers” (MacCready PI, with Banas), \$62,516, from, Salish Sea Marine Survival Project. 2/1/2015-12/31/2017. (MacCready 2 mo.)

“Proposal for the Development of an Ocean Acidification Forecast Model” (Banas and Siedlecki, JISAO, CoPIs), \$308,749, from WA State through the Washington Ocean Acidification Center, 9/1/2013-6/30/2017. (MacCready 1 mo.).

Marine Spatial Planning, \$17k, from WA DNR. 11/1/2012-6/30/2013. (MacCready 1 month).

“Collaborative Project: Improving the Representation of Coastal and Estuarine Processes in Earth System Models” (Frank Bryan NCAR PI, with Mike Whitney at UConn) DOE, total \$354,322, 9/15/2011-9/14/2015. (MacCready 3 mo. + 1 postdoc).

"Transport and Fate of Nutrient and Pathogen Loadings into Nearshore Puget Sound: Consequences for Shellfish Growing Areas (Mary Ruckleshaus NOAA PI, with Banas, MacCready, others) EPA, UW subcontract is \$201,962, 9/1/2010-8/31/2012 (0.5 mo. for PM).

“PNWTOX: The Columbia River plume and the HABs in the Pacific Northwest: bioreactor, barrier, or conduit?” (B. Hickey, PI) NOAA award, NA09NOS4780180, my portion is \$365,722, 9/1/2009-8/31/2014 (6 mo.).

"Energetics of Estuarine & Coastal Flow," NSF, \$463,635, 6/1/2009-5/31/2012 (7 mo.).

“Puget Sound Modeling” UW-PRISM, \$212,193, 6/1/2008-5/31/2010, (6 mo.)

“Collaborative Research: Direct estimation of topographic form drag from seafloor pressure measurement,” (Jim Moum, OSU, PI) NSF, my portion is \$332,637, 6/1/2008-5/31/2013 (5 mo.).

“Remote Sensing and Modeling of Coherent Structures in River and Estuarine Flows,” (Andy Jessup, APL, PI), ONR, my portion is \$76,818, 5/1/2005-4/30/2010, (5 mo.). (ended 6/2/2008 – used only 2 months)

“Collaborative Research: Coastal Form Drag and Eddies,” with Geno Pawlak (UH), NSF, my portion is \$396,084, 9/16/2004-9/15/2009, (13 mo.).

“A Pilot Coastal Observatory for the Estuaries and Shores of Oregon and Washington,” NOAA, \$131,998, 7/1/2004-2/28/2006, (6 mo.), Antonio Baptista (OHSU) PI.

"A Practical Educational Experience in Estuarine and Coastal Fluid Dynamics," (for FHL Summer School) NSF, \$19,791, 5/2003-2004. Funds for this class were also provided by the School of Oceanography, WHOI, and ONR.

"Collaborative Research: Productivity, Biogeochemical Transformations and Cross-Margin Transport in an Eastern Boundary Buoyant Plume Region" NSF CoOP program, my portion is \$1,074,823, ~6/2003-2009, (18 mo.), Hickey PI.

"Development of a Prototype Robotic Drifter Boat," UW Royalty Research Fund, \$27,264, 3/16/2002-3/14/2003, (0.25 mo.).

"Estuarine Adjustment and Sensitivity," NSF, \$256,513, 1/16/2002-2/28/2008, (15 mo.).

"Observations of Tidal Headland Eddies in Deep Water," with Geno Pawlak (UH), NSF, \$310,000, 3/1/01-2/29/04, (8 mo.).

"Ocean-Estuarine Coupling and Material Processing by Oysters", with David Armstrong and Curtis Roegner (UW Fisheries), Barbara Hickey (UW Oceanography), PM, Jennifer Ruesink (UW Zoology), Brett Dumbauld (WA DFW), and Jan Newton (WA DOE), Washington State Sea Grant, \$478,702, 1/1/01-12/31/03, (2.5 mo.).

"Natural variability of the physical environment and its effect on the marine ecosystem of Willapa Bay", with Barbara Hickey PI (UW Oceanography) and David Armstrong (UW Fisheries), Washington State Sea Grant, \$175,000, 6/1/99-11/30/00, (0.75 mo.).

"CISNet In Situ and Remote Monitoring of Productivity and Nutrient Cycles in Puget Sound", with Al Devol, Steve Emerson, and Mary Jane Perry (UW) and Jan Newton (WA Ecology), NASA & EPA/NOAA, \$581,876, 10/1/98-9/30/01 (0 mo.).

"Boundary Stress Over Extreme Topography", Mike Gregg PI, SECNAV/CNO Chair and ONR Scholar Program, \$1,800,000, 6/1/97-3/14/02 (27 mo).

"Boundary Stress Over Rough Topography", ONR, \$95,000, 10/1/97-9/30/99 (10 mo).

"Physical and Biological Controls of CO₂ Levels in the Southern Ocean: A Multi Tracer Approach", Paul Quay PI, NSF-JGOFS, \$200,000, 8/1/96-7/31/98 (4 mo).

"Meridional Transport Across the Antarctic Circumpolar Current", NSF, \$213,500, 7/1/96-6/30/99 (12 mo).

"Meridional Circulation in the Deep Caribbean Driven by an Overflow Plume", with Peter Rhines 0% PI, NSF, \$106,000, 6/1/94-11/30/96 (12 mo).

"Oceanic General Circulation: Combined Forcing by Stress and Buoyancy", with Peter Rhines PI, NSF, \$793,406, 6/15/93-6/14/96 (21 mo).

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