TED CONROY

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EDUCATION

University of Oregon September 2016 - August 2018
M.S. Earth Sciences *(specialty Physical Oceanography)*
Thesis: The Dynamics and Exchange Flow Variability of the Coos Estuary, Oregon.
Advisor: Dr. David Sutherland

University of Hawaii at Manoa August 2012 - May 2015
B.S. Global Environmental Science
Thesis: Examining Late Twentieth Century Trends in the Central Tropical Pacific.
Advisor: Dr. Brian Powell

RESEARCH INTERESTS

Coastal oceanography, estuarine and near-shore hydrodynamics, numerical ocean modeling, sediment transport.

PUBLICATIONS

T. Conroy, D.A. Sutherland, D.K. Ralston. Estuarine exchange flow variability in a seasonal, segmented estuary. In review at *Journal of Physical Oceanography.*

E.E. Eidam, D.A. Sutherland, D.K. Ralston, B. Dye, **T. Conroy**, J. Schmitt, P. Ruggiero, J. Woods. Impacts of 150 years of shoreline and bathymetric change in the Coos Estuary, Oregon, USA. In review at *Estuaries and Coasts.*

EXPERIENCE

University of Oregon September 2016 - December 2018
Graduate Employee *Eugene, OR*

I developed a high resolution numerical ocean model of the Coos Estuary, Oregon, using the Finite Volume Coastal Ocean Model (FVCOM). I then calibrated and validated the model using in-situ and boat-based observational data, and used the model to understand the temporal variability in estuarine exchange flow throughout a seasonal cycle. In addition to research and coursework, I was a teaching assistant for a number of undergraduate courses in the Earth Science department.

U.S.G.S. Pacific Marine Science Center December 2015 - July 2016
Volunteer *Santa Cruz, CA*

I processed wave time-series data from buoys along the West coast of the United States. Additionally I helped with monthly beach elevation monitoring along the central California coast.

Analytical Geochemistry Lab, University of Hawaii at Manoa September 2014 - May 2015
Lab Technician *Manoa Valley, HI*

I performed grain size, porosity, and other sediment analysis from sediments from He'eia fishpond that were collected before and after a large scale mangrove removal in the fishpond.

CONFERENCE PRESENTATIONS

2019. Estuarine exchange flow variability in a seasonal, segmented estuary. **T. Conroy**, D. Sutherland, D. Ralston (presenter). Poster. GRC Coastal Ocean Dynamics conference. Manchester, NH.

2018. Fine-sediment dynamics in the estuary of a small mountainous river. E. Eidam, **T. Conroy**, D. Sutherland, D. Ralston. Poster. AGU Fall meeting. Washington D.C..

2018. Past, present, and potential future hydrodynamics and sediment transport in the Coos Estuary. **T. Conroy**, E. Eidam, D. Sutherland, K. Bartlett, D. Ralston, B. Dye. Poster. State of the Oregon Coast. Coos Bay, Oregon.

2018. The Influence of Smaller Connecting Channels on Estuarine Exchange Flow. **T. Conroy**, D. Sutherland, D. Ralston. Poster. Ocean Science Meeting, Portland, Oregon.

2017. Natural and human-induced interaction between two small, seasonal PNW estuaries. D. Sutherland, **T. Conroy**, M. Jarrin, D. Ralston. Poster. Coastal and Estuarine Research Federation Conference, Providence, Rhode Island.

2017. Seasonal Exchange Flow Variability in a Pacific Northwest Estuary. **T. Conroy**, D. Sutherland. Poster. Eastern Pacific Ocean Conference, Lake Tahoe, California.

2017. The effects of anthropogenic perturbations and climactic change on a tropical coastal system: A comparative study. C. Tognacchini, M. McManus, K. Ruttenberg, **T. Conroy**, J. Horley-Feitosa. Poster. ASLO Meeting, Honolulu, Hawaii.

GRADUATE COURSEWORK

Fluid Dynamics, Geophysical Fluid Dynamics, Nearshore Sediment Transport, Physical Oceanography, Numerical Methods, Geochemical Modeling, Environmental Data Analysis.

FIELD WORK EXPERIENCE

20 small boat cruises (CTD/ADCP) on the Coos Estuary, Oregon.
Leconte Bay (CTD/ADCP), Alaska, 7 days.
R/V Falkor Research Cruise, West Oahu, 5 days.

AWARDS

University of Oregon Thayer Environmental Scholarship, 2017.

TEACHING ASSISTANT POSITIONS

Department of Earth Sciences, University of Oregon
Intro to Oceanography, Geology of the Pacific Northwest, Volcanoes and Earthquakes, Intro to Geology.

SKILLS AND TOOLS

MATLAB, Unix, Python, FORTRAN, Numerical Modeling, Data Analysis, Statistics, High Performance Computing, FVCOM Numerical Ocean Model, Oceanographic Instrument Deployment, Oceanographic Mooring Construction, Small Boat Operation, Suspended Sediment Measurements and Calibration, CTD and ADCP data processing, LaTeX, Microsoft Office.