Ted Conroy

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Research Interests

Coastal oceanography, estuarine and near-shore hydrodynamics, tracer transport and mixing, numerical modeling, sediment transport, observational techniques, satellite and drone imagery, etc.

Education

PhD (in progress) Earth Science, University of Waikato, started March 2020, expected Feb. 2023
Thesis advisor: Dr. Karin Bryan

M.S. Earth Science, University of Oregon, 2018
Thesis advisor: Dr. David Sutherland

B.S. Global Environmental Science, University of Hawaii at Manoa, 2015
Thesis advisor: Dr. Brian Powell

Publications

2. Eidam, E.F., D.A. Sutherland, D.K. Ralston, B. Dye, ***T. Conroy***, J. Schmitt, P. Ruggiero, and J. Wood, 2019: Impacts of 150 years of shoreline and bathymetric change in the Coos Estuary, Oregon, USA. *Estuaries and Coasts*, in review.

1. ***Conroy, T.***, D.A. Sutherland, and D.K. Ralston, 2020: Estuarine exchange flow variability in a seasonal, segmented estuary. *Journal of Physical Oceanography*, https://doi.org/10.1175/JPO-D-19-0108.1.

Presentations

Shifts in sediment routing and deposition associated with 150 years of estuary modification in Coos Bay, Oregon. E. Eidam, D. Sutherland, D. Ralston, B. Dye, ***T. Conroy***. Talk. Ocean Sciences Meeting 2020. San Diego, California

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

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

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 2018. Coos Bay, Oregon

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

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 2017. Providence, Rhode Island

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

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 2017, Honolulu, Hawaii

The influence of mangrove removal on sediment characteristics at the He'eia Fishpond. ***T. Conroy***, K. Ruttenburg, J. Horley-Feitosa. Talk. He'eia Fishpond Science Night. Kaneohe, Hawaii

Experience

Hydrographic technician at Cardinal Point Captains
Graduate Employee at University of Oregon
Volunteer at USGS Pacific Marine Science Center
Lab technician at University of Hawaii at Manoa Analytical Geochemistry Lab

Skills

Programming: MATLAB, Python, FORTRAN
Ocean models used: FVCOM, ROMS
Instruments used: CTD, ADCP, Multibeam and Sidescan sonar, Sediment core, Water samplers, VMP
Topics: numerical modeling, data analysis, statistics, data processing, high performance computing

Graduate Coursework Completed

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

Teaching Assistant Positions

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

Oceanographic Fieldwork

Multibeam/Side Scan Sonar in the Gulf of Mexico
CTD/ADCP/Suspended Sediment in the Coos Estuary, Oregon
CTD/ADCP in Leconte Bay, Alaska
CTD/Microstructure in West Oahu, Hawaii

Outreach and Engagement

1. Eugene Ice-Posium 2016, 2017 with Dave Sutherland