

Ted Conroy

Ph.D. student, University of Waikato, Aotearoa New Zealand

(he/him)

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Research Interests

Coastal physical oceanography, estuarine hydrodynamics, tracer transport and mixing, numerical modeling, sediment transport, remote sensing, etc.

Education

Ph.D. (*in progress*) Earth Science, University of Waikato, started March 2020, expected Feb. 2023

Thesis: Sediment and river plume variability in a bay with multiple fluvial inputs

Advisor: Dr. Karin Bryan

M.S. Earth Science, University of Oregon, 2018

Thesis: The dynamics and exchange flow variability of the Coos Estuary

Advisor: Dr. David Sutherland

B.S. Global Environmental Science, University of Hawaii at Manoa, 2015

Thesis: Examining late twentieth century trends in the Central Tropical Pacific Ocean

Advisor: Dr. Brian Powell

Publications

3. Eidam, E.F., Sutherland, D.A., Ralston, D.K., **Conroy, T.** and Dye, B., 2021. Shifting sediment dynamics in the Coos Bay Estuary in response to 150 years of modification. *Journal of Geophysical Research: Oceans*, 126(1), p.e2020JC016771.
2. Eidam, E.F., D.A. Sutherland, D.K. Ralston, B. Dye, **Conroy, T.**, J. Schmitt, P. Ruggiero, and J. Wood, 2020: Impacts of 150 years of shoreline and bathymetric change in the Coos Estuary, Oregon, USA. *Estuaries and Coasts*, pp.1-19.
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

Remote sensing of turbid river plume variability. **T. Conroy**, K. Bryan, C. Fichot. Poster. New Zealand Marine Science conference 2021. Tauranga, New Zealand.

Shifts in sediment routing and deposition associated with 150 years of estuary modification in Coos Bay, Oregon. E. Eidam (*presenter*), 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 (*presenter*), **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 (*presenter*), **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 (*presenter*), 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, COAWST/ROMS

Instruments used: CTD, ADCP, Multibeam and Sidescan sonar, Sediment corers, Water samplers, Hyperspectral radiometer

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

CTD/radiometer/sediment small boat work in Hawke Bay, NZ

Multibeam/side scan sonar in the Gulf of Mexico

CTD/ADCP/sediment in the Coos Estuary, Oregon

CTD/ADCP in Leconte Bay, Alaska

CTD/Microstructure in West Oahu, Hawaii

Professional Memberships

The Oceanography Society, New Zealand Coastal Society