

**Postdoctoral fellowship:** Estuarine dynamics / Sediment transport / Numerical modeling

**Advisor:** Dave Sutherland, University of Oregon (<http://pages.uoregon.edu/dsuth/>)

**Location:** Dept. of Earth Sciences, University of Oregon, Eugene, Oregon, USA

**Duration:** up to 2 years

**Topic:** Estuarine dynamics and sediment transport in Coos Bay, Oregon

**Description:** Coos Bay, Oregon, is a seasonal estuary located in the PNW, embedded within the California Current System. Inside Coos Bay lies the South Slough National Estuarine Research Reserve, the site of decades of water quality monitoring and restoration efforts. However, the greater Coos Bay estuary is heavily influenced by human activity, such as dredging. This project will examine the underlying estuarine dynamics and explore what controls sediment transport within the Bay. The overall goal is to improve our knowledge of circulation mechanisms within the Bay over multiple time and space scales, developing a numerical model to be validated by observations. Then, we will work to identify sediment transport mechanisms through the Bay and perform perturbation experiments to examine estuarine response to change. The successful applicant will enjoy opportunities to conduct fieldwork, both in Coos Bay and other regions alongside project partners that include Woods Hole Oceanographic Institution (WHOI) and Oregon State University (OSU).

We seek a postdoctoral researcher with strong quantitative skills, preferably with expertise in one or more of the following: numerical ocean modeling, estuarine sediment dynamics, or observational estuarine oceanography; although all candidates with physical oceanography or sediment dynamics backgrounds will be considered. The postdoctoral researcher will collaborate with a diverse research team from multiple institutions (WHOI, OSU) and utilize a wide range of techniques and data sources. The primary tool will be a numerical ocean model such as FVCOM or ROMS. The successful applicant should have a PhD (by the start date) in physical oceanography, coastal sediment dynamics, or a related-discipline. Applicants should have a record of good written and spoken communication skills, as well as evidence of being an independent researcher with a collaborative attitude.

**To apply:** Please send 1) a curriculum vitae and 2) a one-page statement describing your research background in the context of this project, as well as 3) arrange to have three letters of recommendation sent to Dave Sutherland ([dsuth@uoregon.edu](mailto:dsuth@uoregon.edu)). Review of applicants will begin on December 15, 2016, and continue until the position is filled. The successful applicant will be able to start as early as Spring 2017. The position is initially for one-year and includes support for travel and publications, with a second year contingent on progress and funding.

**The setting:** Located 110 miles south of Portland, the University of Oregon has an enrollment of over 25,000 students. The Eugene metro area (pop. 215,000) is in a region noted for its dynamic quality of life and progressive cultural environment. We are about an hour's drive from both the Pacific Ocean and the Cascade Mountains. The University of Oregon is an equal-opportunity, affirmative-action institution committed to cultural diversity and compliance with the Americans with Disabilities Act. Candidates who promote and enhance diversity are strongly desired. For more information, contact Professor Dave Sutherland (<http://pages.uoregon.edu/dsuth/>).