

Daniel J Sulak

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Education

M.S. Student of Physical Oceanography, Dept. of Geological Sciences, University of Oregon

Advised by: David Sutherland

Topic of study: Fjord water circulation in Greenland

B.S. Global Environmental Science, University of Hawaii, December 2007

Advised by: Kathleen Ruttenberg

Thesis: Sorption characteristics of dissolved phosphorus compounds onto iron (oxy)hydroxides in seawater.

Research Interests

Effects of iceberg melt on fjord water stratification and circulation. Controls on tidewater glacier calving and ice discharge rates. Remote sensing, GIS. Modeling iceberg melt.

Experience

Investigating the effect of iceberg meltwater on the stratification and circulation within fjords in Greenland (2014-present)

Using data from iceberg mounted GPS units, moorings, XCTD casts, virtual moorings from instrumented seals, and multispectral satellite images to estimate the volume of melted ice from icebergs in fjords in Greenland.

Monitoring native fish populations in the Mid-Columbia River and its tributaries (2011-2014)

Using radio telemetry, mark/recapture efforts, snorkel surveys, spawning surveys, and PIT tagging to monitor populations, analyze dam passage, and investigate the effectiveness of habitat restoration efforts for salmon, steelhead, bull trout, and lamprey.

Investigating the sorption and desorption properties of iron (oxy)hydroxides in seawater. (2006-2008)

Performing laboratory experiments using synthesized iron minerals both organic and inorganic P compounds in a solution of artificial seawater to investigate the control of P in solution by iron minerals to give insight into coastal sediment/seawater interactions.

Assisted in research examining the role of sediment in the cycling of nutrients in a coastal Hawaiian fish pond. (2006-2008)

Collected sediment cores. Sectioned cores in a glove bag under a N₂ atmosphere. Analyzed solid and liquid phase samples for nutrients.

Publications

Peer Reviewed

Ruttenberg, K.C., and **D.J. Sulak**, (2011) Sorption and desorption of dissolved organic phosphorus onto iron (oxyhydr)oxides in seawater, *Geochim. Cosmochim. Ac.*, 75(15), 4095-4112.

Annual report

Johnsen, A., M. C. Nelson, **D. J. Sulak**, C. Yonce, and R. D. Nelle. 2013. Passage of radio-tagged adult Pacific lamprey at Yakima River diversion dams. 2012 Annual Report. U.S. Fish and Wildlife Service, Leavenworth, WA.