

Daniel J. Nowacki

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Education

- Doctor of Philosophy** 2015
University of Washington — School of Oceanography
Thesis title: Sediment dynamics in tidal systems spanning a range of fluvial influence
Adviser: Andrea Ogston
- Master of Science in Engineering (Civil)** 2010
University of Washington — Department of Civil & Environmental Engineering
Thesis title: Sediment removal from the Columbia River plume using a control volume formulation
Adviser: Alexander Horner-Devine
- Bachelor of Science in Computer Engineering** 2004
Syracuse University — College of Engineering & Computer Science
Summa cum laude
Physics Minor

Employment

- Research Oceanographer** 2015–present
Mendenhall Postdoctoral Research Fellow
U.S. Geological Survey — Woods Hole Coastal & Marine Science Center
- Graduate Research Assistant** 2009–2015
University of Washington — School of Oceanography
- Graduate Research Assistant** 2008–2009
University of Washington — Department of Civil & Environmental Engineering
- Hydrologist** 2004–2008
U.S. Geological Survey — National Research Program
- Student Researcher** 2003
Universidad Politécnica de Madrid, Madrid, Spain

Teaching

- Graduate Teaching Assistant** 2012, 2013
OCEAN 410: Marine Geology & Geophysics
OCEAN 201: Introduction to Oceanography Lab
University of Washington — School of Oceanography
- Guest Lecturer** 2012, 2013
Friday Harbor Labs Marine Sedimentary Processes Research Apprenticeship
University of Washington — School of Oceanography

Grants, Activities, Awards, and Scholarships

- USGS Mendenhall Research Fellowship** 2015
Two-year Federal postdoctoral appointment with the USGS
Coastal & Marine Geology Program

Pan-American Advanced Studies Institute	2013
Short course: “Toward a Sustained Operational River-to-Shelf Observation & Prediction System for the Amazon”	
Universidade Federal Fluminense, Niteroi, Brazil	
School of Oceanography Innovation Grant	2013
Development of an underwater imaging system (\$2,000)	
National Defense Science & Engineering Graduate (NDSEG) fellowship	2010–2013
Three-year tuition and salary award for study leading to a Ph.D (\$189,681)	
Engineers Without Borders USA, University of Washington chapter	2008–2011
Active graduate-student member; served on two assessment and implementation trips to Andean Bolivia in 2009 and 2011	
USGS/DOI STAR Award	2007
U.S. Geological Survey	
Institute of Electrical and Electronics Engineers (IEEE) Best Senior Design Project Implementation Award	2004
Syracuse University	
Eagle Scout, Boy Scouts of America	

Skills, Training, &c.

- Varied and extensive field-based scientific research experience on four continents
Ship/field time: 60+ days tidal Amazon River, Brazil; 25+ days Mekong River estuary, Vietnam; 20+ days Chincoteague Bay, MD/VA, 40+ days Waipaoa shelf, New Zealand; 7 days Sego Sandstone, Book Cliffs, UT; 20+ days Willapa tidal flats, WA; 14 days Washington/Oregon shelf; 50+ days Florida Everglades
- Broad small boat operation experience in support of scientific research
- Instrumentation design and integration
- Hydrodynamic/wave model compilation and configuration (SWAN, SWASH, Delft3D, ROMS)
- Programming & software: Matlab, FORTRAN, Perl, Python, ArcGIS, C, NetCDF, shell scripting, Linux/UNIX system administration
- U.S. Government B-3 aviation training; OSHA forklift operator training
- Written and conversational spoken Spanish

Professional Memberships

American Geophysical Union
Coastal & Estuarine Research Federation

Peer-Reviewed Publications

Fricke, A.T., Nittrouer, C.A., Ogston, A.S., **Nowacki, D.J.**, Asp N.E., Souza Filho, P.W.M., da Silva, M.S., 2017, River tributaries as sediment sinks: Processes operating where the Tapajós and Xingu rivers meet the Amazon tidal river, *Sedimentology*, doi:10.1111/sed.12372.

Nowacki, D.J., Beudin, A., Ganju, N.K., 2017, Spectral wave dissipation by submerged aquatic vegetation in a back-barrier estuary, *Limnology & Oceanography*, doi:10.1002/lno.10456.

Ganju, N.K., Suttles, S.E., Beudin, A., **Nowacki, D.J.**, Miselis, J.L., Andrews, B.D., 2016, Quantification of storm-induced bathymetric change in a back-barrier estuary, *Estuaries*

and Coasts, doi:10.1007/s12237-016-0138-5.

- Nowacki, D.J.**, Ogston, A.S., Nittrouer, C.A., Fricke, A.T., Van, P.D.T., 2015, Sediment dynamics in the lower Mekong River: transition from tidal river to estuary, *Journal of Geophysical Research: Oceans*, doi:10.1002/2015JC010754.
- Nowacki, D.J.**, Ogston, A.S., 2013, Water and sediment transport of channel-flat systems in a mesotidal mudflat: Willapa Bay, Washington, *Continental Shelf Research*, doi:10.1016/j.csr.2012.07.019.
- Nowacki, D.J.**, Horner-Devine, A.R., Nash, J.D., Jay, D.A., 2012, Rapid sediment removal from the Columbia River Plume, *Continental Shelf Research* 35, doi:10.1016/j.csr.2011.11.013.
- Harvey, J.W., Noe, G.B., Larsen, L.G., **Nowacki, D.J.**, McPhillips, L.E., 2011, Field flume reveals aquatic vegetation's role in sediment and particulate phosphorus transport in a shallow aquatic ecosystem, *Geomorphology* 126, doi:10.1016/j.geomorph.2010.03.028.
- Harvey, J.W., Schaffranek, R.W., Noe, G.B., Larsen, L.G., **Nowacki, D.J.**, O'Connor, B.L., 2009, Hydroecological factors governing surface water flow on a low-gradient floodplain, *Water Resources Research* 45, doi:10.1029/2008wr007129.

Technical Reports

- Schaffranek, R.W., Stewart, M.A., and **Nowacki, D.J.**, 2007, Surface-Water Exchange through Culverts along State Road 9336 within Everglades National Park, 2004-2005, *U.S. Geological Survey Data Series* 358.

Publications Under Review or in Preparation

- Nowacki, D.J.** et al., accepted with revisions, Seasonal, tidal, and geomorphic controls on sediment import to Amazon River tidal floodplains, submitted to *Journal of Geophysical Research: Earth Surface*.
- Nowacki, D.J.** et al., in prep, Storm-driven suspended-sediment fluxes in a back-barrier lagoon: Chincoteague Bay, MD/VA.

Presentations (As First Author Only)

- Nowacki, D.J.**, Beudin, A., Ganju, N.K., Response of suspended-sediment fluxes to storms in a back-barrier estuary, Chincoteague Bay, MD/VA, USA, 2016 Ocean Sciences Meeting, 21–26 February 2016, New Orleans, LA.
- Nowacki, D.J.**, Ganju, N.K., A field and numerical study of wave attenuation by submerged vegetation in Chincoteague Bay, Coastal and Estuarine Research Federation 23rd Biennial Conference, 8–12 November 2015, Portland, OR.
- Nowacki, D.J.**, Ogston, A.S., Nittrouer, C.A., Fricke, A.T., Souza-Filho, P.W.M., Asp, N.E., Tidal-channel flow and sediment transport in environments influenced by the tidal Amazon River, Brazil, 2014 Ocean Sciences Meeting, 23–28 February 2014, Honolulu, HI.
- Nowacki, D.J.**, Ogston, A.S., Nittrouer, C.A., Fricke, A.T., Souza-Filho, P.W.M., Asp, N.E., Dynamics of sediment transport in large tropical tidal rivers via observations in the Mekong and Amazon, AGU Fall Meeting, 9–13 December 2013, San Francisco, CA.
- Nowacki, D.J.**, Ogston, A.S., Nittrouer, C.A., Souza-Filho, P.W.M., Silva, M.S., Silveira, O.F., Fricke, A.T., The Amazon tidal river as a missing link in the transport of water and sediment to the ocean, University of Washington Water Symposium, 18 April 2012, Seattle, WA.
- Nowacki, D.J.**, Ogston, A.S., Nittrouer, C.A., Souza-Filho, P.W.M., Silva, M.S., Silveira, O.F., Fricke, A.T., Water and sediment transport in the Amazon tidal river and its tributaries, Ocean Sciences Meeting, 20–24 February 2012, Salt Lake City, UT.
- Nowacki, D.J.**, Ogston, A.S., 2011, Multiple scales of controls on sediment transport in intertidal flats: tidal stage, storms, and seasons, AGU Chapman Conference on Source to

Sink Systems Around the World and Through Time, 24–27 January 2011, Oxnard, CA.

Nowacki, D.J., Ogston, A.S., 2010, Water-surface elevation controls on sediment-transport dynamics in channel-flat environments of intertidal flats, AGU Fall Meeting, 15–17 December 2010, San Francisco, CA.

Nowacki, D.J., Ogston, A.S., Nittrouer, C.A., 2010, Water-surface elevation controls on sediment-transport dynamics in channel-flat environments of intertidal flats, AGU Ocean Sciences Meeting, 22–26 February 2010, Portland, OR.

Nowacki, D.J., Horner-Devine, A.R., Nash, J.D., Jay, D.A., 2009, Turbulent Removal of Sediment from a Buoyant River Plume, Coastal and Estuarine Research Federation 20th Biennial Conference, 1–5 November 2009, Portland, OR.