Emilio Mayorga

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(a) Professional Preparation

Rutgers University	River Biogeochemistry	2007-2008
University of Washington	Chemical Oceanography	Ph.D., 2004
University of Washington	Chemical Oceanography	M.S., 1997
Massachusetts Institute of Technology	Environmental Engineering Science	B.S., 1992

(b) Appointments

Jan. 2009 – present, Senior Oceanographer, Applied Physics Laboratory, University of Washington, Seattle, WA

Jan. 2007 – Dec. 2008, Research Associate, Institute of Marine & Coastal Sciences, Rutgers University, New Brunswick, NJ

Sept. 2001 – Dec. 2006, Principal GIS Analyst, Surface Water Management, Snohomish County, Everett, WA

1993 – 2001, Research Assistant, School of Oceanography, University of Washington.

(c) Products

Five most closely related to the proposal

1. Observations Data Model 2 (ODM 2), http://odm2.org
2. NANOOS Visualization System (NVS), http://nvs.nanoos.org. Web application for user-friendly access to Pacific NW marine data streams integrated from many sources.
3. Brewer, T.E., E.L. Aronson, K. Arogyaswamy, S.A. Billings, J.K. Botthoff, A.N. Campbell, N.C. Dove, D. Fairbanks, R.E. Gallery, S.C. Hart, J. Kaye, G. King, G. Logan, K.A. Lohse, M.R. Maltz, **E. Mayorga**, et al. 2019. Ecological and Genomic Attributes of Novel Bacterial Taxa That Thrive in Subsurface Soil Horizons. MBio 10 (5) e01318-19, doi:10.1128/mBio.01318-19
4. **Mayorga, E.**, L. Setiawan, K. Arogyaswamy, M. Leon, E. Aronson, A. Packman & F. Meyer. 2017. Cross-site soil and microbial ecology cyberinfrastructure for the CZIMEA project. *EarthCube All-Hands Meeting*, Seattle, WA, 8 June.
5. Snowden, D., R. Signell, F. Fernandes, V. Subramanian, K. Knee, K. Bailey and **E. Mayorga**. 2015. Infrastructure and tools for serving, accessing, and analyzing ocean information from the Integrated Ocean Observing System. *Proc. MTS/IEEE Oceans'15, doi:10.23919/oceans.2015.7404637*

Five other significant products

1. WOFpy, https://github.com/ODM2/WOFpy. CUAHSI WaterOneFlow web service implementation for standard-compliant distribution of hydrological data.
2. Hsu, L., **E. Mayorga**, J.S. Horsburgh, M.R. Carter, K.A. Lehnert and S.L. Brantley. 2017. Enhancing interoperability and capabilities of Earth Science data using the Observations Data Model 2 (ODM2). *Data Science Journal* 16(4):1-16, doi:10.5334/dsj-2017-004
3. Haines, S., V. Subramanian, **E. Mayorga**, D. Snowden, R. Ragsdale, C. Rueda and M.

Howard. 2012. IOOS vocabulary and ontology strategy for observed properties. *Proc. MTS/IEEE Oceans'12,* doi:10.1109/OCEANS.2012.6405083
4. **Mayorga, E.**, T. Tanner, R. Blair, A.V. Jaramillo, N. Lederer, C.M. Risien and C. Seaton. 2010. The NANOOS Visualization System (NVS, http://nvs.nanoos.org): Lessons learned in data aggregation, management and reuse, for a user application. *Proc. MTS/IEEE Oceans'10,* doi:10.1109/OCEANS.2010.5663792
5. **Mayorga, E.**, A.K. Aufdenkampe, C.A. Masiello, A.V. Krusche, J.I. Hedges, P.D. Quay, J.E. Richey and T.A. Brown. 2005. Young organic matter as a source of carbon dioxide outgassing from Amazonian rivers. *Nature* 436: 538-541

(d) Synergistic Activities

1. *Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI)* Hydrological Information System Users Working Group, 2014 – 2017; Informatics Working Group, 2018 – present.
2. *NSF EarthCube,* Technical Advisory Committee (TAC) member, 2015 – present; Cyberinfrastructure end-user workshop “Integrating the inland waters biogeochemistry and fluvial sedimentology communities”, Lead, 2013.
3. *University of Washington HackWeeks* co-organizer and tutorial developer: *GeoHackWeek* 2016-2019; *OceanHackWeek* 2018-present; *WaterHackWeek* 2019-present.
4. *Northwest Association of Networked Ocean Observing Systems (NANOOS)*, the Pacific NW Regional Association for the US Integrated Ocean Observing System (IOOS), Data Management and Communications Lead, and national & international data coordination, 2009 – present.
5. *Global Ocean Acidification Observation Network (GOA-ON),* Data Management and Data Portal working group, 2015 – present, and Data Portal (http://portal.goa-on.org) management.