Daniel William Amato

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EDUCATION

Ph.D. in botany, GPA 4.0, marine track, University of Hawai'i at Mānoa	2015
M.S. in botany, GPA 4.0, marine track, University of Hawai'i at Mānoa	2009
B.S. in biology, GPA 3.6, chemistry minor, University of Vermont	2004
Courses in marine science, University of Otago, New Zealand	2003
Courses in marine science, University of Sydney, Australia	2002

EXPERIENCE

Principal Investigator, Amato Science LLC.
Project title: In-Situ Detection of Fecal Indicators Enables Advanced Ocean Safety Forecasting. Responsible for nearly all aspects of this NOAA/Seagrant funded project inspection, grant writing, reporting, training, and coordination with all partners and volunteers. This collaboration between the University of Hawai'i, the Surfrider Foundation, Amato Science, and multiple community volunteers on O'ahu aims to develop multiple in-situ fecal indictor methods that enable real-time forecasting of fecal indicator bacteria in Waikiki waters. T These methods will also be tested during extreme tidal and rain events with the help of trained "Extreme Teams" of citizen scientists in multiple communities on O'ahu, Hawaii. 01/23– present

Principal Investigator, Surfrider Foundation, LLC. 05/20 – present
Project title: A DNA-based test for detection of *Enterococcus* in coastal waters of Hawai'i. Responsible for all aspects of this four-year project that aims to develop and test a LAMP based DNA method that rapidly quantifies fecal indicator bacteria.

Program Director, Surfrider Foundation, LLC, O'ahu Chapter Blue Water Task Force. 01/20 – present
Responsible for all aspects of this citizen science program that monitors fecal indicator bacteria at over 20 sites every two weeks. This includes reporting and communication activities with regulatory agencies, Surfrider Foundation, and the public.

Environmental Scientist, Element Environmental, LLC, Aiea, Hawai'i. 11/17 – present
Responsible for proposals, field data collection, reporting, and invoicing on many international, federal, state, and local clients. Projects range from stormwater pollution programs, site remediation, industrial health, and marine ecology assessments.

Marine Research Specialist, Water Resources Research Center, University of Hawai'i. 02/19 – 03/22
Project title: ACT 132- Initial biological characterization of cesspool wastewater in Hawaiian coastal regions. Co-manager of a large research team spanning four Hawaiian Islands. Duties include program planning, field team training and management, data curation and analysis, report writing and presentations.

Post-doctoral Researcher, Water Resources Research Center, University of Hawai'i. 6/15 – 02/19
Project title: Identifying future hotspots for algal blooms: A multi-dimensional analysis evaluating impacts of potential land-based sources of pollution on the health of American Samoa's coasts. Responsible for the design, implementation, analysis, and publication of an

interdisciplinary study on Tutuila, American Samoa that monitored water quality, algal tissue chemistry, land use, and DNA-based analyses of coral, biofilm, and water microbes to compare the health of nearshore reefs relative to adjacent land use.

Research Assistant, Sea Grant College Program, University of Hawai'i at Mānoa. 3/12 – 5/15
Project title: Connecting Land Use to Submarine Discharge Loads and Coral Reef Health within the Coastal Zones of Maui. Developed a method to identify potential sources of nitrogen to Hawaii's coastal waters using algae. Responsible for the design, execution, analysis, and publication of biological and geochemical experiments on Maui that examined the connectivity between watersheds and nearshore reefs.

US EPA STAR Research Fellow, United States Environmental Protection Agency. 8/11 – 12/14
Project title: Effects of Submarine Groundwater Discharge as a Vector for Sewage Effluent on Hawaiian Coral Reefs. Responsibilities included all aspects of doctoral research.

PUBLICATIONS

Dulai H, Smith CM, **Amato DW**, Gibson V, and L Bremer (2021). Risk to native marine macroalgae from land-use and climate change-related modifications to groundwater discharge in Hawai'i. Limnology and Oceanography Letters, https://doi.org/10.1002/lol2.10232

Smith CM, Whittier RB, **Amato DW**, Diale, ML, Colbert S, Shuler CK, Altman-Kurosaki NT, Vasconcellos S, Markel AC, & B Ornelas (2021). State-Wide Assessment of Wastewater Pollution Intrusion Into Coastal Regions of the Hawaiian Islands. Report Prepared for the Hawai'i State Legislature, Hawai'i State Department of Health, & the Cesspool Conversion Working Group. https://www.hawaii.edu/govrel/docs/reports/2022/act132-slh2018_act170-slh2019_2022_wastewater-pollution-intrusion_report.pdf

Amato DW, Whittier RB, Dulai H, and CM Smith (2020). Algal bioassays detect modeled loading of wastewater-derived nitrogen in coastal waters of O'ahu, Hawai'i. Marine Pollution Bulletin 150, 110668, https://doi.org/10.1016/j.marpolbul.2019.110668

Shuler CK, **Amato DW**, Gibson V, Baker L, Olguin AN, Dulai H, Smith CM, and RA Alegado (2019). Assessment of terrigenous nutrient loading to coastal ecosystems along a human land-use gradient, Tutuila, American Samoa. Hydrology 6(1), 28 https://doi.org/10.3390/hydrology6010018

Amato DW, Smith CM, and TK Duarte (2018). Submarine groundwater discharge modifies photosynthesis, growth, and morphology for two contrasting species of *Gracilaria* (Rhodophyta). Hydrology 5(4), 65 https://doi.org/10.3390/hydrology5040065

Bishop JM, Glenn CR, **Amato DW**, and H Dulai (2017). Effect of land use and groundwater flow path on submarine groundwater discharge nutrient flux Journal of Hydrology: Regional Studies 11:194-218 https://doi.org/10.1016/j.ejrh.2015.10.

Amato DW, Bishop JM, Glenn CR, Dulai H, and CM Smith (2016). Impact of Submarine Groundwater Discharge on Marine Water Quality and Reef Biota of Maui. PLoS ONE 11(11): e0165825. https://doi:10.1371/journal.pone.0165825

Amato DW (2015). Ecophysiological responses of macroalgae to submarine groundwater discharge in Hawai'i. PhD dissertation. University of Hawai'i at Mānoa, Honolulu, Hawai'i

Duarte TK, Pongkijvorasin S, Roumasset J, **Amato DW**, and K Burnett (2010). Optimal management of a Hawaiian coastal aquifer with nearshore marine ecological interactions. Water Resources Research 46, W11545, https://doi.org/10.1029/2010WR009094

Amato DW (2009). Physiological effects of simulated submarine groundwater discharge on the Hawaiian endemic edible alga *Gracilaria coronopifolia*. MS thesis. University of Hawai'i at Mānoa, Honolulu, Hawai'i