MICHAEL THOMAS MONTGOMERY, Ph.D.

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Qualification Summary

Research Microbiologist with substantial background in marine biogeochemistry, benthic ecology, and intrinsic bioremediation, including specific knowledge of the marine biogeochemistry of lower Chesapeake Bay. Qualifications include direct expertise in:

- ❖ Evaluating contaminant biodegradation in estuarine waters and sediments
- ❖ Evaluating vendor technologies for organic contaminant remediation in sediments
- ❖ Explaining complex scientific ecosystem evaluation methods and principles to regulators and stakeholders
- ❖ Working with industry to develop remedial alternatives
- ❖ Transferring technology from basic science organizations to industrial sector
- ❖ Integrating measures of contaminant fate and transport within the context of complex physical and biological parameters of coastal waters

Professional Experience

Naval Research Laboratory, Marine Biogeochemistry Section, Washington, DC 1993-Present

Research Microbiologist NP-04, Federal	(September 2009–Present)
Acting Section Head, Federal	(December 2003–June 2004)
Research Microbiologist NP-03, Federal	(May 1998–September 2009)
Scientist III, On-Site Contractor	(March 1993–May 1998)

Foster the development of novel environmental research strategies involving contaminant degradation, transport, and source in coastal ecosystems, including tidally influenced groundwater, intertidal marshes, riverine, estuarine and marine ecosystems. Manage and partner with other government agencies, private industry and academic collaborators in multidisciplinary environmental research projects. Transfer technology for environmental cleanup and compliance strategies to DoD and private sector. Review US Navy guidance and policy draft documents for environmental installation, restoration and compliance for Naval Facilities Engineering Command Headquarters. Act as technology liaison with NAVFAC's Risk Assessment Workgroup, which is responsible for formulating US Navy environmental guidance. Performed over 140 environmental samplings in coastal waters, groundwater, saltwater marshes, and soil.

Texas A&M University, College of Science and Engineering, Corpus Christi, TX
Research Associate 2015—Present

Northern Virginia Community College, Biological Sciences, Annandale, VA
Adjunct Professor (56 credit hours taught) 2006—2014

Center of Marine Biotechnology, Baltimore, MD
Postdoctoral Research Associate 1991-1993

Education

- Ph.D. Marine Studies (Marine Biology/Biochemistry) – University of Delaware (1991)
- M.S. Marine Studies (Applied Ocean Sciences) – University of Delaware (1986)
- B.S. Biological Sciences – Old Dominion University (1983)

Professional Memberships

- American Society for Microbiology
- American Society of Limnology and Oceanography
- Association for Environmental Health and Sciences
- American Chemical Society

Scientific and Technical Reviewer

- Action Bioscience
- Applied and Environmental Microbiology
- Applied Microbiology and Biotechnology
- Biodegradation
- Chemosphere
- Department of Defense Advanced Technology Program
- Department of Energy NABIR Program
- Department of Energy Ocean Sciences Program
- Desalination and Water Treatment
- Desalination Journal
- Environmental Science and Pollution Research
- Environmental Science and Technology
- Environmental Toxicology and Chemistry
- International Journal of Environmental Research and Public Health
- Journal of Applied and Environmental Microbiology
- Journal of Environmental Quality
- Journal of Environmental Research and Public Health
- Journal of Hazardous Materials
- Marine Chemistry
- Naval Facilities Engineering Command Environmental Policy and Guidance
- North Carolina Sea Grant Funding Program
- Office of Naval Research (ONR) Marine Biotechnology Program
- ONR Small Business Innovative Research Program
- South Carolina Sea Grant Funding Program
- Virginia Academy of Science

Managed Funded Programs (>$6.5M)

- DoD's SERDP Program (CU23-$800K; CU-30-$2100K ; CU1209-$146K; CU1431- $1350K; CU2123SEED-$147K; CL2123 $454K, New-$62K)
- Office of Naval Research 6.1 Marine Biotechnology Program ($605K)
- Naval Facilities Engineering Command (NAVFAC) N45 6.4 Pollution Prevention ($400K)
- NAVFAC South DIV, Environmental Restoration, Navy (ER,N) Program ($210K)
- NAVFAC EFA Northeast, ER,N Program ($60K)
- NAVFAC LANT DIV, ER,N Program ($150K)
- Beazer East, Inc. ($86K)

Peer-Reviewed Publications (28 total)

Boyd, T. J., **Montgomery, M. T.,** Cuenca, R. H., and Y. Hagimoto. 2016. Measuring carbon-based contaminant mineralization using combined CO_2 flux and radiocarbon analyses. Journal of Visualized Experiments. (116), e53233, DOI:10.3791/53233

Osburn, C. L., Boyd, T. J., **Montgomery, M. T**., Coffin, R. B., Bianchi, T. S., and H. W. Paerl. 2016. Optical proxies for terrestrial dissolved organic matter in estuaries and coastal waters. Frontiers in Marine Science 2:127. DOI:10.3389/fmars.2015.00127

Boyd, T. J., **Montgomery, M. T**., Cuenca, R. H., and Y. Hagimoto. 2015. Coupled radiocarbon and CO_2 flux measurements used to determine chlorinated solvent degradation rate. Environmental Science: processes and impacts, 17(3):683-692.

Coffin, R. B., Hamdan, L. J., Smith, J. P., Rose, P. S., Plummer, R. E., Yosa, B., Pecher, I. A., and **M. T. Montgomery**. 2014. Contribution of Vertical Methane Flux to Shallow Sediment Carbon Pools across the Porangahau Ridge, New Zealand. Energies 7(8):5332-5356.

Brym, A., Paerl, H. W., **Montgomery, M. T**., Handsel, L. T., Ziervogel, K., and C. L. Osburn. 2014. Optical and chemical characterization of base-extracted particulate organic matter in coastal marine environments. Marine Chemistry 162:96-113. DOI:10.1016/j.marchem.2014.03.006

Coffin, R. B., Smith, J. P., Plummer, R. E., Yosa, B., Millholland, L. C., and **M. T. Montgomery.** 2013. Spatial variation in shallow sediment methane sources and cycling on the Alaskan Beaufort Sea Shelf/Slope. Marine and Petroleum Geology 45:186-197.

Montgomery, M. T., Coffin, R. B., Boyd, T. J., and C. L. Osburn. 2013. Incorporation and mineralization of TNT and other anthropogenic organics by natural microbial assemblages from a small, tropical estuary. Environmental Pollution 174:257-264. DOI:10.1016/j.envpol.2012.11.036*

*Chemistry Division Citation for research accomplishment and technical writing (2014).

Stamper, D. M., Morris, R. E., and **M. T. Montgomery**. 2012. Depletion of lubricity improvers from hydrotreated renewable and ultraslow sulfur petroleum diesels by marine microbiota. Energy and Fuels 26(11):6854–6862. DOI:10.1021/ef301158n

Osburn, C. L., Handsel, L. T., Mikan, M. P., Paerl, H. W., and **M. T. Montgomery**. 2012. Fluorescence tracking of dissolved and particulate organic matter quality in a river-dominated estuary. Environmental Science and Technology 46:8628−8636. DOI:10.1021/es3007723

Montgomery, M. T., Coffin, R. B., Boyd, T. J., Smith, J. P., Plummer, R. E., Walker, S. E., and C. L. Osburn. 2011. Mineralization rates of 2,4,6-Trinitrotoluene and bacterial production amongst natural microbial assemblages in coastal sediments. Environmental Pollution 159:3673-3680. DOI:10.1016/j.envpol.2011.07.018*

*Chemistry Division Citation for research accomplishment and technical writing (2012).

Montgomery, M. T., Boyd, T. J., Osburn, C. L., and D. C. Smith. 2010. PAH mineralization and bacterial organotolerance in surface sediments of the Charleston Harbor estuary. Biodegradation 21:257-266. DOI:10.1007/s10532-009-9298-3

Montgomery, M. T., Boyd, T. J., Osburn, C. L., Plummer, R. E., Masutani, S. M., and R. B. Coffin. 2009. Desalination technology waste streams: effect of pH and salinity on metabolism of marine microbial assemblages. Desalination Journal 249(2):861–864. DOI:10.1007/s10532-009-9298-3.

Stamper, D. M., and **M. T. Montgomery**. 2008. Biological treatment and toxicity of low concentrations of oily wastewater (bilgewater). Canadian Journal of Microbiology 54(8):687-693.

Montgomery, M. T., Osburn, C. L., Furukawa, Y., and J. M. Gieskes. 2008. Increased capacity for PAH mineralization in biologically mixed marine sediments. Bioremediation 12(2):1-13.

Castle, D. M., **Montgomery, M. T.**, and D. L. Kirchman. 2006. Effects of naphthalene on microbial community composition in the Delaware Estuary. FEMS Microbial Ecology 56:55-63.

Monteil-Rivera, F., Paquet, L., Halasz, A., **Montgomery, M. T.**, and J. Hawari. 2005. Reduction of octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine by zerovalent iron. Environmental Science and Technology 39:9725-9731.

Boyd, T. J., **Montgomery, M. T.,** Steele, J. K., Pohlman, J. W., Reatherford, S. R., Spargo, B. J., and D. C. Smith. 2005. Dissolved oxygen saturation controls PAH biodegradation in freshwater estuary sediments. Microbial Ecology 49(2): 226-235. DOI:10.1007/s00248-004-0279-0. PMID:15965718.

Coffin, R. B., **Montgomery, M. T.**, Boyd, T. J., and S. M. Masutani. 2005. Influence of ocean CO_2 sequestration on bacterial elemental cycling. Energy 29 (9-10): 1511-1520.

Montgomery, M. T., Spargo, B. J., Mueller, J. G., Coffin, R. B., Smith, D. C., and T. J. Boyd. 2002. Bacterial production stimulated across the zone of influence of a groundwater circulation well in a BTEX-contaminated aquifer. Ground Water Monitoring and Remediation 22(3): 144-150.

Pohlman, J. W., Coffin, R. B., Mitchell, C. S., **Montgomery, M. T.,** Spargo, B. J., Steele, J. K., and T. J. Boyd. 2002. Transport, deposition, and biodegradation of particle bound polycyclic aromatic hydrocarbons in a tidal basin of an industrial watershed. Environmental Monitoring and Assessment 75: 155-167. DOI:10.1023/A:1014435830558. PMID:12002284.

Montgomery, M. T., Smith, D. C., Osburn, C. L., and T. J. Boyd. 2002. Bacterial degradation of aromatic hydrocarbons in surface sediments of temperate and tropical coastal ecosystems. *Eos, Transactions, American Geophysical Union*, Vol. 83, No. 4, OS21O-06.

Montgomery, M. T., Osburn, C. L., T. J. Boyd, D. C. Smith, and J. G. Mueller. 2002. Seasonal succession of the PAH-mineralizing bacteria in creosote-impacted intertidal sediments. Soil and Sediment Contamination 11(3):479.

Boyd, T. J., **Montgomery, M. T.,** Spargo, B. J., Smith, D. C., Coffin, R. B., Kelley, C. A., and J. G. Mueller. 2001. Effects of oxygenation on hydrocarbon biodegradation in a hypoxic environment. Bioremediation Journal 5(2):145-157 (doi:10.1080/20018891079258).

Lantz, S. E., **Montgomery, M. T.,** Schultz, W. W., Pritchard, P. H., Spargo, B. J. and Mueller, J. G. 1997. Constituents of organic wood preservatives that inhibit the fluoranthene degrading activity of bacterial strain *Sphingomonas paucimobilis* Strain EPA505. Environmental Science and Technology 31:3573-3580.

Mueller, J. G., Borchert, S., Heard, C., Lakhwala, F., Lantz, S. E., Klingel, E. J., Klingel, W., Brourman, M. D., Coffin, R. B., Kelley, C., Trust, B., Cifuentes, L. A., **Montgomery, M. T.,** Boyd, T. J., and W. W. Schultz. 1995. Management of PAH-impacted sites via in situ chemical containment and monitoring. Land Contamination and Reclamation 3(6):11-16.

Montgomery, M. T., and D. L. Kirchman. 1994. Induction of chitin-binding proteins during the specific attachment of the marine bacterium *Vibrio harveyi* to chitin. Applied and Environmental Microbiology 60(12):4284-4288.

Montgomery, M. T., and D. L. Kirchman. 1993. Role of chitin-binding proteins in the specific attachment of the marine bacterium *Vibrio harveyi* to chitin. Applied and Environmental Microbiology 59:373-379.

Montgomery, M. T., Welschmeyer, N. A., and D. L. Kirchman. 1990. A simple assay for chitin: Application to sediment traps from the subarctic Pacific. Marine Ecology Progress Series 64(3): 301-308.

Proceedings, Book Chapters and Technical Reports (64 total)

Montgomery, M. T., Boyd, T. J., Drake, L. A., and C. L. Osburn. 2015. TNT degradation by natural microbial assemblages at frontal boundaries between water masses in coastal ecosystems (ER-2124 interim report). US Naval Research Laboratory Letter Report submitted to SERDP (28FEB15).

Montgomery, M. T., Boyd, T. J., Coffin, R. B., Hansel, L. T., Drake, L. A., and C. L. Osburn. 2014. TNT degradation by natural microbial assemblages at frontal boundaries between water masses in coastal ecosystems (ER-2124 interim report). US Naval Research Laboratory Technical Memorandum NRL/MR/6110—14-9504.

Boyd, T. J. **Montgomery, M. T**., Cuenca, R. H., and Y. Hagimoto. 2014. CO_2 radiocarbon analysis to quantify organic contaminant degradation, MNA, and engineered remediation approaches. NRL/MR/6110--14-9539.

Boyd, T. J., Pound, M. J., Cuenca, R. H., Hagimoto, Y., and **M. T. Montgomery**. 2014. Radiocarbon allows direct determination of fuel and industrial chemical degradation at Environmental Restoration (ER) sites. Environmental Restoration News, Naval Facilities Engineering Command Newsletter, February 14(7):13-14.

Giordano, B. C., Osburn, C. L, Lindsey, C., and **M. T. Montgomery**. 2014. Measurement of nitroaromatic explosives by micellar electrokinetic chromatography in waters collected along a salinity gradient of a tropical estuary. US Naval Research Laboratory Technical Memorandum, NRL/MR/6110—14-9504.

Smith, J. P., **Montgomery, M. T.,** Masutani, S., Yoza, B., Kurasaki, R., Kinoshita, C., and R. B. Coffin. 2014. Aerosolization during boron nanoparticle multi-component fuel group burning studies. US Naval Research Laboratory Technical Memorandum, NRL/MR/6110—14-9506.

Montgomery, M. T., Coffin, R. B., Boyd T. J., and C. L. Osburn. 2013. Degradation of aromatic organic compounds by natural bacterial assemblages at estuarine frontal boundaries. Proceedings of the ASLO 2012 Ocean Sciences Meeting, New Orleans, LA, 17-22 February.

Brym, A. J., Ziervogel, K., Paerl, H. W., **Montgomery, M. T.,** and C. L. Osburn. 2013. Characterization of particulate organic matter in three estuaries using parallel factor analysis (PARAFAC). Proceedings of the ASLO 2013 Ocean Sciences Meeting, New Orleans, LA, 17-22 February.

Rose, P. S., Millholland, L. C., Reed, A., Plummer, R. E., **Montgomery, M. T**., Boyd, T. J., and R. B. Coffin. 2013. Natural gas cycling at Seep Site on the UK Continental Shelf, North Sea. US Naval Research Laboratory Technical Memorandum, NRL/MR/6110—13-9452.

Montgomery, M. T., R. B. Coffin, T. J. Boyd, and C. L. Osburn. 2012. TNT biodegradation by

natural microbial assemblages at estuarine frontal boundaries. Naval Research Laboratory Memorandum Report, NRL/MR/6110--12-9390.

Montgomery, M. T., Coffin, R. B., Boyd, T. J., Rose, P. S., Smith, J. P., Sachsenmaier, L., Mikan, M., and C. L. Osburn. 2011. 2,4,6-Trinitrotoluene (TNT) and aromatic organic matter metabolism by natural bacterial assemblages at estuarine transition zones (ER-2124). Proceedings from the SERDP Partners in Environmental Technology Technical Symposium & Workshop, Washington, DC, November 30-December 2.

Luning Prak, D. J., O'Sullivan, D.W., Eisenberg, M. A., Osburn, C. L., **Montgomery, M. T.,** and J. P. Smith. 2011. Photolysis of dinitrotoluene: effects of salinity, nitrate, and humic substances. Proceedings from the SERDP Partners in Environmental Technology Technical Symposium & Workshop, Washington, DC, November 30-December 2.

Stamper, D. M., **Montgomery, M. T.,** and R. E. Morris. 2011. Biofouling of several marine diesel fuels. Naval Surface Warfare Center, Carderock Division, Technical Report, NSWCCD-61-TR-2011/08, March.

Montgomery M. T., Coffin R. B., Boyd T. J., Smith J. P., Walker S. E., and C. L. Osburn. 2011. 2,4,6-Trinitrotoluene mineralization and bacterial production amongst natural microbial assemblages in coastal sediments. Proceedings of the 6th International Conference on Remediation of Contaminated Sediments, New Orleans. Battelle Publications.

Montgomery, M. T., Boyd, T. J., Smith, J. P., Walker, S. E., and C. L. Osburn. 2011."2,4,6-Trinitrotoluene mineralization and incorporation by natural bacterial assemblages in coastal ecosystems", in, (Eds. M.A. Chappell, C.L. Price, R.D. George) Environmental Chemistry of Explosives and Propellant Compounds in Soils and Marine Systems: Distributed Source Characterization and Remedial Technologies, ACS Symposium Series, Vol. 1069, ACS Publications, Washington, DC, pp. 171-184. DOI:10.1021/bk-2011-1069.ch009.

Montgomery, M. T., Coffin, R.B., Boyd, T. J., Hamdan, L. J., Smith, J. P., Plummer, R. B., Walker, S. E., Dittel, A., Masutani, S., Li, Q. X., and C. L. Osburn. 2009. Bacterial production and contaminant mineralization in sediments of the Ala Wai Canal, Oahu, Hawai'i. US Naval Research Laboratory Technical Memorandum, NRL/MR/6110—09-9212

O'Sullivan, D. W., **Montgomery, M. T.**, Denzel, J. R., and D. J. Luning Prak. 2008. Photolysis of 2,4,6-Trinitrotoluene in seawater: effects of salinity, nitrate, pH and dissolved organic matter. Proceedings from the SERDP Partners in Environmental Technology Technical Symposium & Workshop, Washington, DC.

Montgomery, M. T., Boyd, T. J., Smith, J. P., Walker, S. E., and C. L. Osburn. 2008. Bacterial mineralization and incorporation of 2,4,6-Trinitrotoluene (TNT), RDX, and HMX in the coastal waters and sediments (ER-1431). Proceedings from the SERDP Partners in Environmental Technology Technical Symposium and Workshop, Washington, DC.

Montgomery, M. T., Masutani, S., Osburn, C. L., Boyd, T. J., and R. B. Coffin. 2008. Desalination technology waste streams: impact of pH and brine on bacterial production of natural marine assemblages. US Naval Research Laboratory Technical Memorandum, NRL/MR/6110—08-9138

Montgomery, M. T., Boyd, T. J., Smith, J. P., Walker, S. E., and C. L. Osburn. 2008. 2,4,6-Trinitrotoluene mineralization and incorporation by natural bacterial assemblages in coastal ecosystems. Proceedings from the 237th National Meeting of the American Chemical Society, Salt Lake City, UT.

Montgomery, M. T., Walker, S. E., Boyd, T. J., Hamdan, L. J., and C. L. Osburn. 2008. Bacterial degradation of nitrogenous energetic compounds in coastal waters and sediments. US

Naval Research Laboratory Technical Memorandum, NRL/MR/6110—08-9139.

Boyd, T. J., Smith, D. C., Apple, J. K., Hamdan, L. J., Osburn, C. L., and **M. T. Montgomery**. 2008. Evaluating PAH biodegradation relative to bacterial carbon demand in coastal ecosystems: Are PAHs truly recalcitrant? In, Microbial Ecology Research Trends. T. Van Dijk (ed.), NOVA Science Publishers, Inc., pp.1-41.

Montgomery, M. T., Walker, S. W., Osburn, C. L., Hamdan, L. J., Boyd, T. J., Furukawa, Y., Hawari, J., Monteil-Rivera, F., O'Sullivan, D. W., Luning-Prak, D., Paerl, H. W., and Q. X. Li. 2008. Biotic and Abiotic Attenuation of Nitrogenous Energetic Compounds (NEC) in Coastal Waters and Sediments: final report (ER-1431). Strategic Environmental Research and Development Program, www.serdp.org.

Montgomery, M. T., Boyd, T. J., and C. L. Osburn. 2007. Bacterial mineralization and incorporation of 2,4,6-Trinitrotoluene (TNT), RDX, and HMX in the coastal waters of Hawaii, Gulf of Mexico and Chesapeake Bay (ER-1431). Proceedings from the Partners in Environmental Technology Technical Symposium and Workshop, Washington, DC.

Coffin, R. B., Osburn, C. L., and **M. T. Montgomery**. 2006. Impact of a hydrate-based marine desalination technology on marine microbiota and water quality. US Naval Research Laboratory Technical Memorandum, NRL/MR/6110—06-9005 (http://handle.dtic.mil/100.2/ADA461868).

Walker, S. W., Osburn, C. L., Boyd, T. J., Hamdan, L. J., Coffin, R. B., Smith, J. P., Li, Q. X., Hennessee, C., Monteil, F., Hawari, J., and **M. T. Montgomery**. 2006. Mineralization of 2,4,6-trinitrotoluene in coastal waters and sediments, US Naval Research Laboratory Formal Report, NRL/FR/6114—06-10,135 (http://handle.dtic.mil/100.2/ADA456842).

Montgomery, M. T., Osburn, C. L., Walker, S. E., Hamdan, L. J., Boyd, T. J., Furukawa, Y., O'Sullivan, D. W., Paerl, H. W., Li, Q. X., Monteil-Rivera, F., and J. Hawari. 2006. Rates of 2,4,6-Trinitrotoluene (TNT) mineralization and incorporation into biomass by estuarine microorganisms in coastal waters (ER-1431). Proceedings from the SERDP Partners in Environmental Technology Technical Symposium and Workshop, Washington, DC.

Montgomery, M. T., Walker, S. W., Osburn, C. L., Hamdan, L. J., Boyd, T. J., Furukawa, Y., Hawari, J., Monteil-Rivera, F., O'Sullivan, D. W., Paerl, H. W., Li, Q. X., and J. G. Mueller. 2006. Biotic and Abiotic Attenuation of Nitrogenous Energetic Compounds (NEC) in Coastal Waters and Sediments: annual report. US Naval Research Laboratory, Technical Memorandum, NRL/MR/6110—06-8942 (http://handle.dtic.mil/100.2/ADA449116).

Montgomery, M. T., and C. L. Osburn. 2006. Depth profiles of bacterial metabolism and PAH biodegradation. In, Pathway Ranking for In-place Sediment Management (CU1209), S.E. Apitz and D. B. Chadwick (eds.), Strategic Environmental Research and Development Program, Final Site II Report, pp. 162-181.

Montgomery, M. T., and C. L. Osburn. 2006. Depth profile of bacterial metabolism and PAH biodegradation in bioturbated and unbioturbated marine sediments. In, Pathway Ranking for In-place Sediment Management (CU1209), S.E. Apitz and D. B. Chadwick (eds.), Strategic Environmental Research and Development Program, Executive Summary, pp. 133-144.

Montgomery, M. T., Boyd, T. J., Osburn, C. L., and D. C. Smith. 2005. Ambient PAH and metals concentration in intertidal sediments of Coaster's Harbor and Narragansett Bay. NRL Technical Memorandum, NRL/MR/6110—05-8854 (http://handle.dtic.mil/100.2/ADA431173).

Montgomery, M. T., Boyd, T. J., Coffin, R. B., Pohlman, J. W., Beeson, K., Spargo, B. J., Osburn, C. L., Tsakumis, J. K., and D. C. Smith. 2005. Relationship between PAH biodegradation and transport in estuarine sediments, B4-04. In, Remediation of Contaminated Sediments-2005: Finding achievable Risk Reduction Solutions. R.F. Olfenbuttel and P.J. White

(eds.), Proceedings of the Third International Conference on Remediation of Contaminated Sediments (New Orleans, Louisiana; Jan 24–27, 2005). ISBN 1-57477-150-7, Battelle Press, Columbus, OH.

Boyd, T. J., **Montgomery, M. T.,** and R. B. Coffin. 2005. Stable carbon isotope ratios and biodegradation rates of BTEX compounds at the Tranguch Gasoline site, Hazleton, PA. US Naval Research Laboratory Formal Report, NRL/FR/6114—05-10,074 (http://handle.dtic.mil/100.2/ADA432948).

Montgomery, M. T., and C. L. Osburn. 2004. Bacterial metabolism, aromatic biodegradation, and lignin biogeochemistry in sediment cores from Pearl Harbor, HI. US Naval Research Laboratory Formal Report, NRL/FR/6114—04-10,077 (http://handle.dtic.mil/100.2/ADA422667).

Montgomery, M. T., and T. J. Boyd. 2003. Accelerated implementation of harbor processes research. US Naval Research Laboratory, Technical Memorandum NRL/MR/6110—03-8720 (http://handle.dtic.mil/100.2/ADA418440).

Montgomery, M. T., and C. L. Osburn. 2003. Depth profile of bacterial metabolism and PAH biodegradation in bioturbated and unbioturbated marine sediments. US Naval Research Laboratory, Formal Report, NRL/FR/6114—03-10,057 (http://handle.dtic.mil/100.2/ADA413677).

Montgomery, M. T., Boyd, T. J., and D. C. Smith. 2003. Organotolerance in the natural bacterial assemblage in surface sediments of Charleston Harbor, San Diego Bay, and the Upper Delaware River System. US Naval Research Laboratory, Formal Report, NRL/FR/6114—03-10,058 (http://handle.dtic.mil/100.2/ADA415769).

Coffin, R. B., **Montgomery, M. T**., Boyd, T. J., and S. M. Masutani. 2003. Influence of ocean CO_2 sequestration on bacterial elemental cycling. Proceedings from the Sixth International Conference on Greenhouse Gas Control Technologies, Kyoto, Japan.

Montgomery, M. T., Boyd, T. J., Osburn, C. L., and D. C. Smith. 2003. PAH biodegradation, turnover, and ambient concentrations in surface sediments of Coaster's Harbor and Narragansett Bay. US Naval Research Laboratory, Technical Memorandum, NRL/MR/6110—03-8657 (http://handle.dtic.mil/100.2/ADA409489).

Montgomery, M. T., and C. L. Osburn. 2003. Depth profile of bacterial metabolism and PAH biodegradation in bioturbated and unbioturbated marine sediments. In, SERDP CU1209 Pathway Ranking for In-place Sediment Management, FY02 Annual Report, S.E. Apitz and B. Chadwick (eds.), pp. 126-141.

Boyd, T. J., **Montgomery, M. T.,** Coffin, R. B., Reatherford, S. R., and C. V. Badger. 2002. Characterization of intrinsic PAH bioremediation in groundwater during tidal cycles at the Naval Station Norfolk: Interim Report. US Naval Research Laboratory, Formal Report, NRL/FR/6110—02-10,029 (http://handle.dtic.mil/100.2/ADA406731).

Mueller, J. G., Shaw, T., Kulkarni, R., and **M. T. Montgomery.** 2001. Results from URS' statistical analyses of South Marsh sediment data and comparison to NRL microbiological analyses. URS Technical Memorandum.

Boyd, T. J., **Montgomery, M. T**., Spargo, B. J., Coffin, R. B., Mueller, J. G., Steele, J. K., Pohlman, J. W., Demetriades-Shah, T., and M. Slenska. 2000. Source Reduction Effect on Creosote PAH Bioremediation in Marsh Sediments. In: Case Studies in the Remediation of Chlorinated and Recalcitrant Compounds. G. B. Wickramanayake, A. R. Gavaskar, J. T. Gibbs, and J. L. Means (eds.), Batelle Press, Columbus, OH, pp. 189-195.

Montgomery, M. T., Boyd, T. J., Spargo, B. J., Coffin, R. B., Steele, J. K., Ward, D. M., and D. C. Smith. 1999. Bacterial assemblage adaptation in PAH-impacted ecosystems. In: *In Situ* and On-Site Bioremediation. B. C. Alleman and A. Leeson (eds.), Battelle Press, Columbus, OH, Vol. 5(8): 223-228.

Boyd, T. J., **Montgomery, M. T.,** Spargo, B. J. and J. K. Steele. 1999. PAH distribution and biodegradation in the Delaware and Schuykill Rivers. In: *In Situ* and On-Site Bioremediation. B. C. Alleman and A. Leeson (eds.), Battelle Press, Columbus, OH, Vol. 5(8):295-300.

Boyd, T. J., **Montgomery, M. T.,** Spargo, B. J., Coffin, R. B., Steele, J. K., Pohlman, J. P., and D. Velinsky. 1999. Characterization of intrinsic bioremediation within the Philadelphia Naval Complex Reserve Basin. US Naval Research Laboratory, Technical Report, NRL/PU/6115—99-374.

Montgomery, M. T., Spargo, B. J., and T. J. Boyd. 1998. Ecosystem level evaluation of intrinsic contaminant biodegradation at Naval shipyards and impact on adjacent ecosystems: A preliminary report. US Naval Research Laboratory, Technical Memorandum. NRL/MR/6115—98-8140 (http://handle.dtic.mil/100.2/ADA338510).

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Mueller, J., Borchert, S., Heard, C., Lakhwala, F., Lantz, S., Klingel, E., Langley, W., Brourman, M., Coffin, R., Kelley, C., Trust, B., Cifuentes, L., **Montgomery, M.,** Boyd, T., and B. Spargo. 1996. Efficacy monitoring of fuel bioremediation. Proceedings from the Sixth West Coast Conference on Contaminated Soils and Groundwater Association for the Environmental Health of Soils, AEHS.

Borchert, S. Mueller, J., Heard, C., Alesi, E., Klingel, E., Langley, W., Brourman, M., **Montgomery, M.,** Boyd, T., and B. Spargo. 1996. Multi-functional vertical groundwater circulation technology for in situ site bioremediation. Proceedings from the Sixth West Coast Conference on Contaminated Soils and Groundwater Association for the Environmental Health of Soils, AEHS.

Mueller, J., S. Borchert, C. Heard, F. Lakhwala, S. Lantz, M. Brourman, R. Coffin, C. Kelley, B. Trust, **M. Montgomery**, T. Boyd, B. Spargo, and L. Cifuentes. 1996. Efficacy monitoring of in situ fuel bioremediation. Proceedings of the meeting for Petroleum Hydrocarbons and organic Chemicals in Ground Water: Prevention, Detection, and Remediation, Houston, TX.

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Monshipouri, M., **Montgomery, M. T.,** Price, R. R., and B. P. Gaber. 1996. Optimization of physiological state of petroleum degrading bacteria prior to alginate entrapment. Proceedings of the American Chemical Society, 36(1):62-65.

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Montgomery, M. T., and D. L. Kirchman. 1993. Estimating degradation of chitin in aquatic samples, In: Handbook of Methods in Aquatic Microbial Ecology. P. F. Kemp, B. F. Sherr, E. B. Sherr, J. J. Cole (eds.), Lewis Publishers. pp. 597-600.

Instructional Workshops and Classes

2006-2014. Introduction to Biology (BIO 101, 40 credit hours total; BIO 102, 8 credit hours total). Northern Virginia Community College, Annandale Campus, VA.

2004. Biological processes affecting remedial design and performance. USEPA/USACE/SMWG

Joint Sediment Conference Conference on Addressing Uncertainty and Managing Risk at Contaminated Sediment Sites., St. Louis, MO.

2001. Bacterial adaptation for intrinsic bioremediation of PAHs in sediments. Spring Workshop of the EPA Technical Support Project Engineering Forum. San Diego, CA.

2000. Intrinsic hydrocarbon bioremediation in the sediments of Charleston Harbor. Biocomplexity Series for the Graduate School of Oceanography at the University of Rhode Island, Narragansett, RI.

2000. Intrinsic hydrocarbon bioremediation in the sediments of Charleston Harbor. Spring Seminar Series for the Department of Marine Sciences at the University of Connecticut, Groton, CT.

1994. Monitoring bioremediation of BTEX and PAH at contaminated Naval sites. Convocation speaker at Bridgewater College, Bridgewater, VA.

Presentations (115 total)

Atar, J. N., Barnett, E. L., **Montgomery, M. T.,** Handsel, L. T., Boyd, T. J., Coffin, R. B., and C. L. Osburn, 2016. Dynamics of fluorescent organic matter compared between three contrasting estuarine environments. 2016 Ocean Sciences Meeting, New Orleans, LA, 21-26 February.

Osburn, C. L, **Montgomery, M. T**., Boyd, T. J., Bianchi, T. S., Coffin, R. B., and H. W. Paerl. 2016. Optical proxies for dissolved organic matter in estuaries and coastal waters. Presentation at ASLO 2016 Ocean Sciences Meeting, New Orleans, LA, 21-26 February (INVITED).

Peale, J., Scalzi, M., Fowler, T., **Montgomery, M. T**., Boyd, T. J., and J. G. Mueller. 2015. Antimethanogenic ISCR reagent for safer, more efficient remedial actions. Presentation at the Third International Symposium on Bioremediation and Sustainable Environmental Technologies. Miami, FL, 18-21 May.

Montgomery, M. T., Boyd, T. J., and C. L. Osburn. 2014. 2,4,6-Trinitrotoluene (TNT) and aromatic organic matter metabolism by natural bacterial assemblages at estuarine transition zones (ER-2124). Presentation to the SERDP, Arlington, VA, 4 November.

Rose, P. S., Boyd, T. J., Millholland, L. C., Yoza, B., **Montgomery, M. T.,** Klaucke, I., Bialas, J., Pecher, I. A., Gorman, A. R., Coffin, R. B., and the SO226 Science Party. 2013. Carbon isotopic evidence of past and present CH_4 fluxes in a pockmark field on the Chatham Rise? Presentation at the Goldschmidt Conference on Earth Sciences, Florence, Italy, 25-30 August.

Montgomery, M. T., Coffin, R. B., Boyd T. J., and C. L. Osburn. 2013. Degradation of aromatic organic compounds by natural bacterial assemblages at estuarine frontal boundaries. Presentation at the ASLO 2013 Ocean Sciences Meeting, New Orleans, LA, 17-22 February.

Brym, A. J., Ziervogel, K., Paerl, H. W., **Montgomery, M. T.,** and C. L. Osburn. 2013. Characterization of particulate organic matter in three estuaries using parallel factor analysis (PARAFAC). Presentation at the ASLO 2013 Ocean Sciences Meeting, New Orleans, LA, 17-22 February.

Montgomery, M. T., Coffin, R. B., Boyd, T. J., Rose, P. S., Smith, J. P., Sachsenmaier, L., Mikan, M., and C. L. Osburn. 2011. 2,4,6-Trinitrotoluene (TNT) and aromatic organic matter metabolism by natural bacterial assemblages at estuarine transition zones (ER-2124). Presentation at the SERDP Partners in Environmental Technology Technical Symposium & Workshop, Washington, DC, November 30-December 2. (INVITED)

Luning Prak, D. J., O'Sullivan, D. W., Eisenberg, M. A., Osburn, C. L., **Montgomery, M. T.,**

and J. P. Smith. 2011. Photolysis of dinitrotoluene: effects of salinity, nitrate, and humic substances. Presentation at the SERDP Partners in Environmental Technology Technical Symposium & Workshop, Washington, DC, November 30-December 2. (INVITED)

Stamper, D. M., Morris, R. E., and **M. T. Montgomery**. 2011. Biofouling of petroleum and bio-derived marine diesel fuels. Presentation at the 111th General Meeting of the American Society for Microbiology. New Orleans, LA, May 21-24.

Montgomery M. T., Coffin, R. B., Boyd, T. J., Smith, J. P., Walker, S. E., and C. L. Osburn. 2011. 2,4,6-Trinitrotoluene mineralization and bacterial production amongst natural microbial assemblages in coastal sediments. Presentation at the 6th International Conference on Remediation of Contaminated Sediments. New Orleans, LA, 7-10 February.

Boyd, T. J., **Montgomery, M. T.,** and S. D. Jarvela. 2009. Hydrocarbon source apportionment using compound-specific carbon isotope analysis at a multiple potentially-responsible party (PRP) UST site. International Network of Environmental Forensics Conference, Calgary, Alberta, Canada, August 31-September 2. (INVITED)

Montgomery, M. T., Boyd, T. J., Smith, J. P., Walker, S. E., and C. L. Osburn. 2009. 2,4,6-Trinitrotoluene mineralization and incorporation by natural bacterial assemblages in coastal ecosystems. 237th National Meeting of the American Chemical Society, Salt Lake City, UT, March 22-26. (INVITED)

O'Sullivan, D. W., **Montgomery, M. T.**, Denzel, J. R., and D. J. Luning Prak. 2008. Photolysis of 2,4,6-Trinitrotoluene in seawater: effects of salinity, nitrate, pH and dissolved organic matter. SERDP Partners in Environmental Technology Technical Symposium & Workshop, Washington, DC, December 2-4. (INVITED)

Montgomery, M. T., Boyd, T. J., Smith, J. P., Walker, S. E., and C. L. Osburn. 2008. Bacterial mineralization and incorporation of 2,4,6-Trinitrotoluene (TNT), RDX, and HMX in the coastal waters and sediments (ER-1431). SERDP Partners in Environmental Technology Technical Symposium and Workshop, Washington, DC, December 2-4. (INVITED)

Stamper, D. M., and **M. T. Montgomery**. 2008. Petroleum and synthetic oils biodegradation in a combined approach for treating oily and non-oily wastewaters. Presentation at the 108th American Society for Microbiology General Meeting, Boston, June 1-5.

Montgomery, M. T., Boyd, T. J., and C. L. Osburn. 2008. Bacterial mineralization and incorporation of 2,4,6-Trinitrotoluene (TNT) in the coastal waters of Hawaii, Gulf of Mexico and Chesapeake Bay. Presentation at the 18th Annual AEHS Meeting and West Coast Conference on Soils, Sediments, and Water. San Diego, March 10-13.

Montgomery, M. T., Boyd, T. J., and C. L. Osburn. 2007. Bacterial mineralization and incorporation of 2,4,6-Trinitrotoluene (TNT), RDX, and HMX in the coastal waters of Hawaii, Gulf of Mexico and Chesapeake Bay (ER-1431). Presentation at the SERDP Partners in Environmental Technology Technical Symposium and Workshop, Washington, DC, December 4-6. (INVITED)

Hilyard, E. J., **Montgomery, M. T.,** Hamdan, L. J., Spargo, B. J., and R. T. Hill. 2007. Multiple PAH-degrading bacteria isolated from estuarine sediment enrichment cultures. Presentation at the 107th American Society for Microbiology General Meeting, Toronto, Ontario, Canada, May 21-25.

Montgomery, M. T., Osburn, C. L., Walker, S. E., Boyd, T. J., Mueller, J. G., Li, Q. X., Paerl, H. W., Monteil-Rivera, F., and J. Hawari. 2007. Biodegradation of 2,4,6-Trinitrotoluene (TNT) in coastal waters and sediments. Presentation at the 17th Annual AEHS Meeting and West Coast Conference on Soils, Sediments, and Water. San Diego, March 19-22.

Boyd, T. J. and **M. T. Montgomery**. 2007. Hydrocarbon source apportionment using compound specific carbon isotope analyses and multivariate statistics. Presentation at the 17th Annual AEHS Meeting and West Coast Conference on Soils, Sediments, and Water. San Diego, March 19-22.

Montgomery, M. T., Osburn, C. L., Walker, S. E., Hamdan, L. J., Boyd, T. J., Furukawa, Y., O'Sullivan, D. W., Paerl, H. W., Li, Q. X., Monteil-Rivera, F., and J. Hawari. 2006. Rates of 2,4,6-Trinitrotoluene (TNT) mineralization and incorporation into biomass by estuarine microorganisms in coastal waters (ER-1431). Presentation at the SERDP Partners in Environmental Technology Technical Symposium and Workshop, Washington, DC, November 28-30. (INVITED)

O'Sullivan, D. W., Osburn, C. L., **Montgomery, M. T.,** and D. J. Lunning-Prak. 2006. Degradation of emergent and explosive contaminant compounds in natural waters. Presentation at the SERDP Partners in Environmental Technology Technical Symposium and Workshop, Washington, DC, November 28-30. (INVITED)

Montgomery, M. T., Monteil-Rivera, F., and J. Hawari. 2006. Contribution of hydrolysis in the natural attenuation of TNT, RDX, and HMX in coastal waters (ER-1431). Presentation at the SERDP Partners in Environmental Technology Technical Symposium and Workshop, Washington, DC, November 28-30. (INVITED)

Montgomery, M. T., Walker, S. W., Osburn, C. L., Hamdan, L. J., Boyd, T. J., Furukawa, Y., Hawari, J., Monteil-Rivera, F., O'Sullivan, D. W., Paerl, H. W., Li, Q. X., and J. G. Mueller. 2006. Biotic and abiotic attenuation of nitrogenous energetic compounds (NEC) in coastal waters and sediments: annual report. SERDP In Progress Review, February 7.

Osburn, C. L., Walker, S. W., Hamdan, L. J., Boyd, T. J., Furukawa, Y., O'Sullivan, D., Paerl, H. W., Li, Q., Monteil, F., Hawari, J., and **M. T. Montgomery.** 2006. Biotic and abiotic attenuation of nitrogenous energetic compounds (NEC) in coastal waters and sediments. NAVFAC 0817 program review, Vicksburg, MS, March 15.

Montgomery, M. T., Walker, S. W., Osburn, C. L., Hamdan, L. J., Boyd, T. J., Furukawa, Y., Hawari, J., Monteil-Rivera, F., O'Sullivan, D. W., Paerl, H. W., Li, Q. X., and J. G. Mueller. 2006. Biotic and abiotic attenuation of nitrogenous energetic compounds (NEC) in coastal waters and sediments. NAVFAC NW DIV/EPA site review, Bremerton, WA, July 26.

Montgomery, M. T., Walker, S. W., Hamdan, L. J., Osburn, C. L., Boyd, T. J., Furukawa, Y., Lunning-Prak, D., O'Sullivan, D., Paerl, H. W., Li, Q., Monteil, F., and J. Hawari. 2005. Biotic and abiotic attenuation of nitrogenous energetic compounds (NEC) in coastal waters and sediments. SERDP Partners in Environmental Technology Technical Symposium and Workshop, Washington, DC, November 29-December 1. (INVITED)

Montgomery, M. T., Osburn, C. L., Boyd, T. J., Hamdan, L. J., and S. E. Walker. 2005. Biodegradation of nitrogenous energetic compounds in coastal ecosystems. Presentation at the 26th Annual Meeting of SETAC North America, Baltimore, MD, November 13-16. (INVITED)

Montgomery, M. T., Boyd, T. J., Coffin, R. B., Pohlman, J. W., Osburn, C. L., and D. C. Smith. 2005. Relationship between PAH biodegradation and transport in estuarine sediments. Third International Conference on Remediation of Contaminated Sediments. New Orleans, LA, January 24-27. (INVITED)

Walker, S. E., Boyd, T. J., Osburn, C. L., Hamdan, L. J., Donowick, T. G., and **M. T. Montgomery**. 2004. Biodegradation of nitroaromatic energetic compounds in coastal systems. 9th FECS Conference on Chemistry and the Environment, Bordeaux, France, 29 August - 1 September.

Mueller, J. G., **Montgomery, M. T.,** and A. Seech. 2004. Bioremediation technologies for

marine sediments. Presentation at the Baltic International Symposium on Advances in Marine Environmental Research, Monitoring and Technologies. Klaipeda, Lithuania, June 15-17. (INVITED)

Montgomery, M. T., Smith, J. P., Boyd T. J., and C. L. Osburn. 2004. The effect of benthic community change on bacterial PAH metabolism in anthropogenically-impacted estuarine sediments. Presentation at the ASLO 2004 Summer Meeting, Savannah, GA, June 13-18. (INVITED)

Montgomery, M. T., Smith, J. P., Boyd T. J., and C. L. Osburn. 2004. The effect of bioturbation on bacterial PAH and TNT metabolism in estuarine sediments. Presentation at the 104th General Meeting of the American Society for Microbiology, New Orleans, LA, May 23-27.

Montgomery, M. T, Boyd, T. J., Walker, S. E., Hamdan, L. J., and C. L. Osburn. 2004. TNT mineralization rates among natural bacterial assemblages in sediments from San Diego Bay, Norfolk, San Francisco Bay, and Pearl Harbor. ONR/NAVFAC Program Review, Vicksburg, MS, February 5-6. (INVITED)

Boyd, T. J., Coffin, R. B., Osburn, C. L., Pohlman, J. W., **Montgomery, M. T.**, Grabowski, K. S., and D. L. Knies. 2004. Carbon-based tools for confirming in situ biodegradation of fossil fuel-derived contaminants. Advance Remedial Technology Transfer Seminar Series to Naval Facilities Engineering Command, Washington, DC, January 14-17.

Montgomery, M. T., and C. L. Osburn. 2003. Bacterial PAH metabolism with depth in bioturbated and unbioturbated estuarine sediments. Presentation at the 17th Biennial Conference of the Estuarine Research Federation. Seattle, September 14-18.

Osburn, C. L., and **M. T. Montgomery**. 2003. Terriginous organic matter support of contaminant degradation in estuarine sediments. Presentation at the 17th Biennial Conference of the Estuarine Research Federation. Seattle, September 14-18.

Apitz, S. E., Chadwick, D. B., Germano, J., Geiskes, J., Maa, G., **Montgomery, M. T.,** Paulsen, R., Smith, C., and W. Ziebis. 2003. Integrated results of the pathway ranking for in-place sediment management (PRISM) program: critical assessment. Presentation at the 17th Biennial Conference of the Estuarine Research Federation, Seattle, September 14-18.

Boyd, T. J., Osburn, C. L., Pohlman, J. W., **Montgomery, M. T.,** and R. B. Coffin. 2003. Biogeochemistry of natural and anthropogenic organic matter at NRL. Chesapeake Bay Laboratory, University of Maryland Fall Seminar Series, Solomon's, MD, September 11.

Boyd, T. J., and **M. T. Montgomery.** 2003. Microbial mineralization of PAHs sorbed to allochthonous and autochthonous DOM determined in freshwater to marine transects. Presentation at the 103rd General Meeting of the American Society for Microbiology. Washington, DC, May 18-23.

Osburn, C. L., Donowick, T., and **M. T. Montgomery.** 2003. Lignin geochemistry and environmental remediation in estuarine sediments. Presentation at the Ohio University Seminar Series, Athens, OH, May 16.

Apitz, S. E., Chadwick, D. B., Germano, J., Gieskes, J. M., Kirtay, V.J., Maa, G., **Montgomery, M. T.,** Paulsen, R., Smith, C., and W. Zeibis. 2003. In situ evaluation of contaminant behaviour in nearshore sediments – results of the Pathway ranking for In-situ sediment management (PRISM) Programme. Presentation at the 6th Underwater Science Group Symposium, Aberdeen, Scotland, April 3-6. (INVITED)

Montgomery, M. T., Boyd, T. J., Osburn, C. L., Mueller, J. G., and D. C. Smith. 2003.

Preferential degradation of PAHs over natural organic matter by bacteria in intertidal sediments. Presentation at the 225th American Chemical Society National Meeting, New Orleans, LA, March 23-27. (INVITED)

Osburn, C. L., Donowick, T., and **M. T. Montgomery.** 2003. Cometabolism of natural and anthropogenic aromatics in estuarine sediments. Presentation at the 225th American Chemical Society National Meeting, New Orleans, LA, March 23-27. (INVITED)

Montgomery, M. T., Coffin, R. B., Beeson, K. E., Pohlman, J. W., Osburn, C. L., Boyd, T. J., and D. C. Smith. 2003. Tidal cycle transport of PAH verses biodegradation in surface sediments in Charleston Harbor. Presentation at the 13th Annual West Coast Conference on Contaminated Soils, Sediments and Water, San Diego, CA March 17-20. (INVITED)

Osburn, C. L., Donowick, T., and **M. T. Montgomery.** 2003. Microbial cometabolism of terriginous organic matter, PAHs, and nitroaromatics in estuarine sediments. Presentation at the 13th Annual West Coast Conference on Contaminated Soils, Sediments and Water, San Diego, CA March 17-20. (INVITED)

Montgomery, M. T., Chrisey, L. A., Osburn, C. L., and T. J. Boyd. 2003. Implementation of Harbor Processes Project #123. Presentation at the NAVFAC's 2003 Cleanup Conference, Port Hueneme, CA, February 11-13. (INVITED)

Apitz, S. E., Chadwick, D. B., Arias, E., Carlson, A., Germano, J., Gieskes, J. M., Kirtay, V.J., Maa, G., **Montgomery, M. T.,** Paulsen, R., Smith, C., and W. Zeibis. 2002. Pathway ranking for In-situ sediment management (PRISM) – Balancing risk and recovery. Presentation at the Partners Environmental Technology Technical Symposium, Washington, DC, December 3-5.

Apitz, S. E., Chadwick, D. B., Germano, J., Gieskes, J. M., Kirtay, V. J., Maa, G., **Montgomery, M. T.,** Paulsen, R., Smith, C., and W. Zeibis. 2002. Pathway ranking for In-situ sediment management (PRISM). Presentation at the 23rd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Salt Lake City, UT, November 16-20. (INVITED)

Montgomery, M. T., Osburn, C. L., Chadwick, D. B., Germano, J., Mahn, C., Zeibis, W., and J. M. Gieskes. 2002. Depth profile of bacterial metabolism and PAH biodegradation in bioturbated and unbioturbated marine sediments. Presentation at the 23rd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Salt Lake City, UT, November 16-20. (INVITED)

Montgomery, M. T., Reatherford, S. R., Smith, D. C., Osburn, C. L., and T. J. Boyd. 2002. Bacterial degradation of polycyclic aromatic hydrocarbons in surface sediments of coastal ecosystems. Presentation at the 17th AEHS Annual International Conference on Contaminated Soils, Sediments, and Water, Amherst, MA, October 21-24.

Montgomery, M. T., Reatherford, S. R., Smith, D. C., Osburn, C. L., and T. J. Boyd. 2002. Bacterial Degradation of Polycyclic Aromatic Hydrocarbons in Surface Sediments of Coastal Ecosystems. Presentation at the 17th AEHS Annual International Conference on Contaminated Soils, Sediments, and Water, Amherst, MA, October 21-24. (INVITED)

Coffin, R. B., **Montgomery, M. T.,** Boyd, T. J., and S. M. Masutani. 2002. Influence of ocean CO_2 sequestration on bacterial elemental cycling. Presentation at the Sixth International Conference on Greenhouse Gas Control Technologies, Kyoto, Japan, October 1-4.

Boyd, T. J., Osburn, C. L. Pohlman, J. W., and **M. T. Montgomery.** 2002. Natural and anthropogenic organic matter utilization in coastal waters. Navy Applied Research Program (PE 0602236N) Environmental Quality Technical Review, US Naval Academy, June 26. (INVITED)

Montgomery, M. T., Osburn, C. L., and T. J. Boyd. 2002. Bacterial degradation of PAHs in sediments of temperate and tropical coastal ecosystems. Navy Applied Research Program (PE

0602236N) Environmental Quality Technical Review, US Naval Academy, June 26. (INVITED)

Boyd, T. J., Osburn, C. L., Pohlman, J. W., and **M. T. Montgomery.** 2002. Biogeochemistry of natural and anthropogenic organic matter in coastal environments. Virginia Institute of Marine Science Spring Seminar Series. Gloucester Point, VA, April 12. (INVITED)

Montgomery, M. T., Smith, D. C., Osburn, C. L., Mueller, J. G., and T. J. Boyd. 2002. Seasonal succession of the PAH-mineralizing bacteria in creosote-impacted intertidal sediments. Presentation at the 12th Annual West Coast Conference on Contaminated Soils, Sediments and Water. San Diego, CA, March 18-21. (INVITED)

Montgomery, M. T., Smith, D. C., Osburn, C. L., and T. J. Boyd. 2002. Bacterial degradation of aromatic hydrocarbons in surface sediments of temperate and tropical coastal ecosystems. Presentation at the 2002 Ocean Sciences Meeting. Honolulu, HI, February 11-15.

Montgomery, M. T., Osburn, C. L., Steele, J. K., Badger, C. V., and T. J. Boyd. 2001. Bacterial adaptation to PAH degradation in the sediments of the Elizabeth River and lower Chesapeake Bay. Presentation at the 17th AEHS Annual International Conference on Contaminated Soils, Sediments, and Water, Amherst, MA, October 22-25. (INVITED)

Montgomery, M. T., Boyd, T. J., Coffin, R. B., and B. J. Spargo. 2001. Intrinsic bioremediation of PAHs in sediments around the former Charleston Navy Yard. Presentation at the 4th Tri-Service Environmental Technology. San Diego, CA, June 18-20.

Boyd, T. J., **Montgomery, M. T.,** Pohlman, J. W., and B. J. Spargo. 2001. Transport, fate and biodegradation in and around the Philadelphia Naval Complex Reserve Basin. Presentation at the 4th Tri-Service Environmental Technology, San Diego, CA, June 18-20.

Boyd, T. J., **Montgomery, M. T.,** Steele, J. K., Ward, D. M., Smith, D. C., Spargo, B. J., Coffin, R. B, Pohlman, J. W., Mueller, J. G., and D. C. Smith. 2001. PAH biodegradation in an intertidal salt marsh. Presentation for the Spring meeting of the EPA Technical Support Project Engineering Forum, San Diego, CA, May 10 (INVITED)

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