

Curriculum vitae
ARTURO A. MASSOL-DEYA, Ph.D.

Status: Professor

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Education:

- Doctor of Philosophy, June 1994
“Microbial biofilm communities in granular activated carbon fluidized bed reactors for treatment of groundwater contaminated with aromatic hydrocarbons”
Department of Microbiology & Center for Microbial Ecology, Michigan State University, East Lansing, MI
- Bachelor of Science Magna Cum Laude, June 1990
Biology, University of Puerto Rico, Humacao, PR

Professional Employment:

- University of Puerto Rico, 2002-Present (Professor)
- University of Puerto Rico, 1997-2002 (Associate Professor)
- University of Puerto Rico, 1994-1997 (Assistant Professor)
- Michigan State University, 1992-1994 (Research Assistant)
- Michigan State University, 1991-1992 (Teaching Assistant)

Association Memberships and Activities:

- Director, Environmental Educational Program “Instituto Comunitario de Biodiversidad y Cultura / Casa Pueblo”, 2003-present
- International Society of Microbial Ecology, member since 1998
- Executive Board, Bosque del Pueblo, member since 1997
- Caribbean Society of Biotechnology, 1995
- American Society for Microbiology, member since 1989
- Taller de Arte y Cultura de Adjuntas, member since 1980

Awards and Special Professional Duties:

- DOE Fast Fellowship, 2006
- Adjoin Faculty, Center for Environmental and Toxicological Research, School of Medicine, UPR-Medical Science Campus, 2006.

- EPA Environmental Award, 2004.
- PR-ASM Dr. Arturo Carrión Memorial Award, 2004.
- National Science Foundation Review Panelist, 2004.
- PR Board of Higher Education, 2003-present.
- PR Environmental Quality Board Consultant, 2003.
- National Science Foundation Review Panelist, 2002.
- Outstanding Young Investigator, Government of PR, 2002.
- Outstanding Investigator, Presidency of UPR, 2000.
- Dedication Microbiology Week. SEMI, UPR-Mayagüez. March 1997.
- MARC Doctoral Fellowship. NIH, 1990-1994.
- Agüedo Mojica. Outstanding UPR-Humacao Student, 1990.
- MARC Undergraduate Fellowship. NIH, 1988-1990.

Publications:

- Rodríguez-Martínez, E., E.X. Pérez, C.W. Schadt, J. Zhou, and A. Massol-Deyá. 2006. Microbial Diversity and Bioremediation of a Hydrocarbon-Contaminated Aquifer in Vega Baja, Puerto Rico. *International Journal of Environmental Health*. 3(3):292-300.
- Massol-González, A., E. González, A. Massol-Deyá, T. Deyá Díaz, and T. Geoghegan. 2006. Bosque del Pueblo, Puerto Rico: How a fight to stop a mine ended up changing forest policy from the bottom up. Policy that works for forests and people no. 12. International Institute for Environment and Development, London. 130pp.
- Massol, A., D. Pérez, E. Pérez, M. Berrios, and E. Díaz. 2005. Trace elements analysis in forage samples from a US Navy bombing range (Vieques, Puerto Rico). *Int. J. Environ. Res. Public Health*. 2(2):263-266.
- Massol-Deyá, A., R. Muñiz, M. Colón, J. Graulau, and N. S. Tang. 2005. Microbial Community Structure of Pentachlorophenol Contaminated Soils as Determined by Carbon Utilization Patterns. *Caribbean Journal of Science* 41:138-146.
- Massol-Deyá, A. y E. Díaz. 2003. Trace elements composition in forage samples from various anthropogenically impacted areas in Puerto Rico. *Caribbean Journal of Science*. 39:215–220.
- Nieves, I., N. Rodríguez, and A. Massol. 2003. Selective Bioaugmentation of diesel-contaminated soil and groundwater. In: V.S. Magar and M.E. Kelley (Eds.), *In Situ and On-Site Bioremediation*. Battelle Press, Columbus, OH. 5 pp.
- Rodríguez, N., C. Rodríguez, E. Díaz, and A. Massol. 2003. Bioremediation of diesel-polluted soil and groundwater under denitrifying conditions. In: V.S. Magar and M.E. Kelley (Eds.), *In Situ and On-Site Bioremediation*. Battelle Press, Columbus, OH. 8 pp.
- Massol-Deyá, A. y E. Díaz. 2000. *Ciencia y Ecología: Vieques en Crisis Ambiental*. CasaPueblo Press. 59 pp.
- Massol-Deyá, A. 2000. *Biorremediación: de una realidad social a una solución ecológica*. Second Edition, CasaPueblo Press. 67 pp.

- C. Rodríguez, E. Díaz, R. Alvarez and A. Massol-Deyá. In press. Bioremediation of Diesel Contaminated Soil Under Denitrifying Conditions. *In Proceedings of the 15th Conference on Contaminated Soils and Water*, 1999.
- Gómez, I. N. S. Tang and A. Massol-Deyá. 1999. Treatment of BTX contaminated groundwater in a fluidized bed reactor. *In Proceedings of the 31st Mid-Atlantic Industrial and Hazardous Waste Conference*. 13 pp.
- Canino, G., N. S. Tang, N. Cavallaro and A. Massol-Deyá. 1998. Bioremediation of PCP contaminated soil by composting. *In Proceedings of the 14th Meeting of Contaminated Soil*. pp. 273-284.
- Massol-Deyá, A. 1997. Biodiversidad y biocatálisis: alternativas para procesos de manufactura sustentables. *International Journal of Environmentally Conscious Design and Manufacturing*. 6:45-48.
- Massol-Deyá, A., R. Weller, L. Ríos-Hernández, R. F. Hickey, and J. M. Tiedje. 1997. Succession and convergence of biofilm communities in fixed-film reactors treating benzene, toluene, and p-xylene contaminated groundwater. *Applied and Environmental Microbiology*. 63:270-276.
- Rodríguez, C., S. Crespo, N. Tang, G. García and A. Massol-Deyá. Differentiation and grouping of toluene degrading bacteria isolated from tropical soils by amplified ribosomal DNA restriction analysis (ARDRA). *In Proceedings of Forum on Environmental Remediation and Environmental Toxicology*, September 1996, Lansing, Michigan. pp. 233-234.
- Gómez, I., R. Soto, A. Massol-Deyá and N. Tang. Bioremediation of groundwater contaminated with aromatic hydrocarbons in a fluidized bed reactor. *In Proceedings of Forum on Environmental Remediation and Environmental Toxicology*, September 1996, Lansing, Michigan. pp. 235-236.
- Tang, N., J. Graulau, H. Ortiz, N. Cavallaro, R. Muñoz, and A. Massol-Deyá. Composters for Bioremediation of PCP contaminated soils. *In Proceedings of Forum on Environmental Remediation and Environmental Toxicology*, September 1996, Lansing, Michigan. pp. 302-303.
- Cavallaro, N., H. Ortiz, N. Tang, and A. Massol-Deyá. Adsorption of pentachlorophenol by three soils and its extractability. *In Proceedings of Forum on Environmental Remediation and Environmental Toxicology*, September 1996, Lansing, Michigan. pp. 269-270.
- Massol-Deyá, A., J. Whallon, R. F. Hickey, and J. M. Tiedje. 1995. Channel structures in aerobic biofilms of fixed-film reactors treating contaminated groundwater. *Applied and Environmental Microbiology*. 61:769-777.
- Tiedje, J. M., R. A. Sanford, and A. Massol. 1995. Advantages and disadvantages of consortia in bioremediation. *In Bioremediation: the Tokyo '94 Workshop*. OECD, Paris pp 357-367.
- Tiedje, J. M., S. M. Thiem, A. Massol-Deyá, J. O. Ka, and M. R. Fries. 1995. Tracking Microbial Populations Effective in Reducing Exposure. *Environmental Health Perspectives*. 103:117-120.
- Massol-Deyá, A., R. F. Hickey, and J. M. Tiedje. 1995. Microbial biofilm communities in biological activated carbon fluidized bed reactors for treatment of groundwater contaminated with aromatic hydrocarbons. *In Proceedings of*

- GeoEnvironmental Problems Facing the Americas Conference. Mayagüez, PR. pp. 164-169.
- Martínez-Cruzado, J. and A. Massol-Deyá. 1995. Puerto Rico: its economic development and geo-environmental reality. In Proceedings of GeoEnvironmental Problems Facing the Americas Conference. Mayagüez, PR. pp. 20-23.
- Canino, G., N. Tang, R. Muñiz, A. Massol-Deyá, and N. Cavallaro. 1995. Bioremediation of Contaminated Soil by Composting. In Research Findings on Environmental Remediation and Toxicology. Center for Microbial Ecology, Michigan State University. pp. 122-125.
- Massol-Deyá, A., J. Whallon, R. F. Hickey, and J. M. Tiedje. 1994. Biofilm architecture: a fortuitous engineering feature. *ASM News*. 60(8):467 and cover.
- Massol-Deyá, A., J. Whallon, R. F. Hickey, and J. M. Tiedje. 1993. Microbial colonization and biofilm development in granular activated carbon fluidized bed reactors (GAC-FBR) for treatment of aromatic hydrocarbons. *In* Center for Microbial Ecology Research Findings, Michigan State University. pp. 38-40 and cover.
- Massol-Deyá, A., R. Weller, R. F. Hickey, and J. M. Tiedje. 1992. Use of nucleic acid methods to study colonization and succession in aerobic toluene treatment reactor. *In* Center for Microbial Ecology Research Findings, Michigan State University. pp. 33-35.
- Fuentes, F. and A. Massol. 1998. Manual de Laboratorios: Ecología de Microorganismos. Impresos RUM. 284 pp.
- Massol-Deyá, A. 1997. Biorremediación: de una realidad social a una solución ecológica. Impresos RUM. 54 pp.
- Diffoot, N. and A. Massol-Deyá. 1996. Basic molecular procedures: introduction to bacterial biotechnology. Workshop supplement, University of Puerto Rico, Mayagüez. 17 pp.
- Massol-Deyá, A., D. A. Odelson, R. F. Hickey, and J. M. Tiedje. 1995. Bacterial community fingerprinting of amplified 16S and 16-23S ribosomal DNA gene sequences and restriction endonuclease analysis (ARDRA). *In* Molecular Microbial Ecology Manual. A. D. L. Akkermans, J. D. van Elsas & F. J. de Bruijn, Eds. Kluwer Academic Publishers, The Netherlands.