

LUIS J. OLIVIERI
CURRICULUM VITAE

PERSONAL:

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EDUCATION:

PhD. Studies in Soil Science in the area of soil conservation, dealing with the area of non-point source pollution, using remote sensing and GIS. The Ohio State University, Columbus, Ohio. *Not completed.* Research Topic: Estimation of watershed seasonal residue cover with Landsat TM imagery and its application to watershed nonpoint source modeling.

M.S. Agronomy in the area of crop science. University of Puerto Rico, Mayagüez, P.R. March 1985. Research Topic: Evaluation of Herbicides in "apio" (*Arracacia xanthorrhiza* Banc.) in two Ultisols.

B.S. Agronomy and Soil Science. University of Puerto Rico, Mayagüez, P.R.

WORK EXPERIENCE:

Research Assistant: (6/1996 - present). Department of Agronomy and Soils, University of Puerto Rico, Mayagüez, P.R. Developing and establishing research in non-point source pollution modeling and management of the natural resources using the technologies of remote sensing and Geographic Information Systems (GIS). Teaching course in the use of remote sensing and GIS in agricultural sciences.

Assistant Dean (9/6/2000 – 6/2001). Office of the Dean of Academic Affairs, University of Puerto Rico, Mayagüez, P.R. Oversees, supervise, and coordinate academic processes at the University.

Consultant: (10/98-9/2000). National Oceanic and Atmospheric Administration (NOAA). Oversees and assist in the data collection and development of a GIS database of historical data for the Jobos Bay National Estuarine Research Reserve.

Associate Director: (7/1998 – 4/2000). Department of Agronomy and Soils, University of Puerto Rico, Mayagüez, P.R. Assist in the administrative operation of the Department.

Water Quality Modeling Coordinator (7/1994 to 5/1996). Division of Real Estate and Land Management, Ohio Department of Natural Resources, Columbus, Ohio. Coordinate and evaluate projects on nonpoint source pollution through the use of computer modeling and the technologies of remote sensing and GIS.

Consultant (2/1992 to 6/1994), Division of Soil & Water Conservation, Ohio Department of Natural Resources, Columbus, Ohio. Developing the linkage between the ERDAS image processing system and GIS to a non-point source pollution model to automatically generate the data required. Assisting in the coordination of nonpoint source projects throughout the state.

Graduate Research Associate (2/1990 to 1/1992), Department of Agricultural Engineering, The Ohio State University, Columbus, Ohio. Developing mathematical equations to estimate soil erodibility from chemical and physical soil properties for the WEPP erosion model.

Graduate Research Associate (4/1987 to 12/1989) and **Graduate Research Associate** (2/90 to 6/91), Department of Agronomy, The Ohio State University, and Soil and Water Conservation Division, Ohio Department of Natural Resources, Columbus, Ohio. Evaluation of seasonal crop residue cover using Landsat TM imagery with ERDAS system. Development of computer programs to process and manipulate GIS files created from image classification and other sources of data to automatically generate the required data to run an erosion model.

PROFESSIONAL ACTIVITIES:

Member of the Advisory Committee of the Development of a Comprehensive Integrated Management Plan for the Mayagüez Bay Watershed. Sponsored by the Puerto Rico Water Resources Institute and other organizations of the area.

Member of the Scientific Advisory Committee of the Jobos Bay National Estuarine Research Reserve. Salinas, PR.

Member of the Senior Executive Board of the Partnership for Spatial and Computational Research (PaSCoR) project. Sponsored by the University of Puerto Rico and the National Aeronautic and Space Administration (NASA).

LIST OF PUBLICATIONS:

Castro, J. A., D. Sotomayor, G. Martinez, and **L. J. Olivieri**. 2000. Toward the implementation of the Phosphorus Index in the Caribbean Area. Proceedings of the Annual Meeting of the Am. Soc. of Agron., Minneapolis, MN

Martínez, G. A., **L. J. Olivieri**, J. A. Castro, O. Muñoz-Torres, and J. L. Guzmán. 1999. Nutritional Status of Soils from the Poultry Zone in Puerto Rico. J. Agric. Univ. of P.R. 83 (1-2): 1 - 18.

Martinez, G. A., **L. J. Olivieri**, J. A. Castro, O. Muñoz-Torres, and J. L. Guzman. 1997. Water contaminant potential of soil from poultry zone in Puerto Rico. Proceedings of the 33rd Annual Meeting of the Caribbean Food Crop Society. San Juan, P.R.

Olivieri L. J. and L. Jimenez. 1997. Validation of the Agricultural Nonpoint Source (AGNPS) pollution model for Puerto Rico. Proceedings of the 33rd Annual Meeting of the Caribbean Food Crop Society. San Juan, P.R.

Olivieri L. J., G. M. Schaal, B. Motsch, and W. J. Elliot. 1995. Linking remote sensing and GIS to soil conservation: Generating AGNPS input from remote sensing and GIS. Electronic Publication in the World Wide Web.

URL:<http://www.dnr.ohio.gov/odnr/reln/remsen/agnps/cleanh2o.html>

Olivieri L. J. and G. M. Schaal. 1995. Home Page for the Remote Sensing Program. Electronic Publication in the World Wide Web.

URL:<http://www.dnr.ohio.gov/odnr/reln/remsen/rspdoc.html>

Olivieri L. J., G. M. Schaal, B. Motsch, and W. J. Elliot. 1992. Linking remote sensing and GIS to soil conservation. Partnerships for Clear Water Conference. Soil & Water Conserv. Soc., Ankeny, Iowa.

Elliot, W. J., **L. J. Olivieri**, and J. M. Laflen. 1992. Researchers use CRAY Super computer in soil erosion studies. Visions, 5(1), Ohio Supercomputer Center, The Ohio State University, Columbus Ohio.

Olivieri L. J., G. M. Schaal, T. J. Logan, W. J. Elliot, and B. Motsch. 1991. Automatic generation of data required by the AGNPS erosion model using Landsat TM image classification and GIS. Paper No. 91-2622, Am. Soc. Agr. Eng., St. Joseph, MI.

Elliot, W. J., J. Laflen, and L. J. **Olivieri**. 1991. Validation of the WEPP Model with erosion plot data. Paper No. 91-2557, Am. Soc. Agr. Eng., St. Joseph, MI.

Elliot, W. J., L. J. **Olivieri**, J. Laflen, and K. D. Kohl. 1990. Predicting soil erodibility from soil properties including classification, mineralogy, climate, and topography. Paper No. 90-2557, Am. Soc. Agr. Eng., St. Joseph, MI.

Elliot, W. J., L. J. **Olivieri**, J. Laflen, and K. D. Kohl. 1990. Predicting soil erodibility from soil strength measurements. Paper No. 90-2009, Am. Soc. Agr. Eng., St. Joseph, MI.

Olivieri, L. J., T. J. Logan, G. M. Schaal, and B. Motsch. 1989. Estimation of watershed seasonal residue cover with Landsat TM imagery and its application to watershed erosion modeling. Am. Soc. Agron. Presented in Las Vegas, NV.

ARTICLES ACCEPTED FOR PUBLICATION:

Delgado, J., **L. J. Olivieri**, W. Bausch, D. Wright, H. Duke, R. Follett, D. Westfall, M. Dillon, A. Thompson-Johns, M. Shaffer and K. Thompson. 2001. Potential Use of Innovative Tools to Increase Nitrogen Use Efficiency and Protect Environmental Quality for Temperate and Tropical Regions. Accepted for publication by the Journal of Stormwater

Submitted for publication to the Caribbean Journal of Sciences.