

Moira L. Zellner

Urban Planning and Policy Program (MC 348)
University of Illinois at Chicago
412 S. Peoria St, 2nd floor
Chicago, IL 60607-7065
(312) 996-2149
mzellner@uic.edu

EDUCATION

UNIVERSITY OF MICHIGAN

Ann Arbor, MI

PhD in Urban, Technological and Environmental Planning

October 2005

Dissertation: "Generating Policies for Sustainable Water Use in Complex Scenarios: An Integrated Land-Use and Water-Use Model of Monroe County, Michigan." Committee: Scott D. Campbell (Co-Chair), Daniel G. Brown (Co-Chair), Rick L. Riolo and John D. Nystuen.

Certificate in Complex Systems

December 2003

Master in Urban Planning

April 2000

CENTRO DE ALTOS ESTUDIOS EN CIENCIAS EXACTAS

Buenos Aires, Argentina

Degree in Biology, specialization in Ecology

December 1995

Thesis: "Identification of areas with different risk levels of atmospheric pollution in the City of Buenos Aires".
Advisor: Angel F. Capurro.

ADDITIONAL TRAINING

INDIANA UNIVERSITY

Bloomington, IN

Invited participant

2005

Summer Institute on Agent-based Modeling and Natural Resources, CIPEC (Center for the Study of Institutions, Population and Environmental Change).

CORNELL UNIVERSITY

Ithaca, NY

Invited participant

1997

Mathematical & Theoretical Biology Institute: The Cornell-SACNAS Mathematical Sciences Summer Program.

SCHOLARSHIPS, GRANTS AND AWARDS

UNIVERSITY OF MICHIGAN

Ann Arbor, MI

Rackham Graduate School One-Term Dissertation Fellowship

2005

Rackham Graduate School Pre-Doctoral Dissertation Fellowship

2004-2005

Rackham Travel Grants to attend ACSP and AAG Conferences

2004-2005

Rackham Distinguished Seminars Grant (in collaboration)

2003

Academic Achievement Award, Master in Urban Planning

2000

Preliminary Field Research Grant, Latin American and Caribbean Studies Program, International Institute

2000

Block Grant, Urban and Regional Planning Program

1999-2000

Jorge M. Perez Fellowship, Urban and Regional Planning Program

1998

CITY OF MIAMI BEACH

Miami Beach, FL

Mayor's Certificate of Appreciation for the Indian Creek Greenway Project

1999

NATIONAL MINISTRY OF CULTURE AND EDUCATION

Argentina

Office of International Cooperation Scholarship

1998-2000

Moira L. Zellner

PROFESSIONAL EXPERIENCE

Research Projects

UNIVERSITY OF ILLINOIS AT CHICAGO

Chicago, IL

PI

2007-present

Urban Sustainability Framework for Energy (USAFE), in collaboration with Thomas L. Theis, Institute for Environmental Science and Policy (UIC), and Heriberto Cabezas, US Environmental Protection Agency.

Participant

2006-present

Sustainable transportation and urbanization research in Bangalore, India, in collaboration with Sustainable Mobility & Accessibility Research and Transformation (SMART) Project, University of Michigan.

PI

2006-present

Integrated land-use and hydrological models for policy, in collaboration with Howard Reeves, US Geological Survey.

UNIVERSITY OF MICHIGAN

Ann Arbor, MI

Research Assistant with Prof. Daniel Brown

2002-2005

Project SLUCE (Spatial Land Use Change and Ecological Effects). Programmed various agent-based models to study the impact of location preferences and zoning on land-use change and environmental quality. Funded by a NSF Biocomplexity grant.

Research Assistant with Prof. Jonathan Levine

2001

Successful Bicycle Planning: A Comparison between Ann Arbor, Boulder and Madison. Conducted literature searches and provided technical support for website construction. Funded by Washtenaw County Drain Commissioner and the getDowntown Program.

Research Assistant with Prof. Jonathan Levine

2000-2001

Public Transit Evaluation Studies for the Ann Arbor Transportation Authority and the getDowntown Program. Designed, directed and analyzed the data collected in two surveys, to evaluate the public transit system and to identify opportunities for alternative modes of transportation in the daily commute to Downtown Ann Arbor. Funded by the Ann Arbor Transportation Authority.

CORNELL UNIVERSITY

Ithaca, NY

Visiting Scholar with Prof. Carlos Castillo-Chavez

1997

Conducted research on mathematical models of the spread of tuberculosis and on air pollution.

UNIVERSITY OF BELGRANO

Buenos Aires, Argentina

Researcher with Prof. Angel F. Capurro

1996-1998

GAIA Project: A Multi-Media Tool for Natural Resources Management and Environmental Education.

Developed mathematical indexes of urban air pollution and epidemiological models of tuberculosis.

Funded by the European Commission; Directorate General for Science, Research and Development (XII); Directorate B; Programme INCO-DC (INCO 950809).

University Teaching

UNIVERSITY OF ILLINOIS AT CHICAGO

Chicago, IL

Assistant Professor, Urban Planning and Policy Program

2006-present

Economics and Environmental Planning, Environmental Planning.

UNIVERSITY OF MICHIGAN

Ann Arbor, MI

Graduate Student Instructor, Residential College

2000-2004

Intermediate Spanish: Discussion on US Latino communities (5 semesters)

Spanish Readings: Course on Latin American cities as complex systems (2 semesters)

Moira L. Zellner

Teaching Assistant, Inter-University Consortium for Political and Social Research

2002-2003

Nonlinear Systems: Agent-Based and Computer Intensive Modeling (2 terms)

Consulting Work

EDAW, Inc.

Miami Beach, FL and Sacramento, CA

Summer Intern, Summer Student Program

1999

Miami Beach: Collaborated in the design of a Master Plan for the Indian Creek Greenway.

Sacramento: Conducted research on social, institutional and infrastructure opportunities and constraints for river restoration and for open space preservation, and collaborated in writing an addendum to the environmental analysis and initial study of a river mitigation site in California.

UNIVERSITY OF MICHIGAN

Ann Arbor, MI

Assistant in the Studies in Urban Security Group

1998-2000

Conducted research and exercises for the University of Michigan and the Detroit Water and Sewerage Department emergency preparedness.

BLACK & VEATCH INTERNATIONAL

Buenos Aires, Argentina

Consultant

1998

Audit of the Integral Remediation Plan for the public water company (Aguas Argentinas S.A.). Reviewed existing information, legal framework and basic data on intake flow and quality; audited effluent quality and its dispersal in the de la Plata river; elaborated guidelines for environmental impact assessments.

J.V. BLACK & VEATCH INTERNATIONAL CO. – FRANKLIN CONSULTORA S.A. – ELECTROSISTEMAS S.A.S.

Buenos Aires, Argentina

Consultant

1998

Cleanup and Flood Control Project for the Reconquista River, Industrial Pollution Control Program. Collaborated in identifying polluting activities, implementing a pilot census and planning the general census and cadastre of polluting sources, evaluating legal aspects and proposing an industrial regulatory program, developing pollution monitoring and reduction programs, and analyzing discharge treatment alternatives. Financed by the Inter-American Development Bank (IADB).

COPIGA S.A. CONSULTORA

Buenos Aires, Argentina

Consultant

1995

Conducted an environmental analysis for the revamping project of 3rd Pier Terminal of the Harbor of the City Buenos Aires, for application for credit to the International Finance Corporation (IFC). Credit awarded.

CITY OF BUENOS AIRES

Buenos Aires, Argentina

Advisor to the Undersecretary of Environment

1994-1995

Provided technical support regarding pollution control in runoff sewer systems, air quality monitoring; medical waste management, surface water remediation, urban hygiene, and urban environmental analysis.

SPEX S.A.

Buenos Aires, Argentina

Consultant

1993-1994

Participated in projects evaluating hazardous wastes treatment and disposal alternatives; developing soil remediation, storage tank clean-up and environmental impact mitigation guidelines for oil refineries; assessing the environmental impact of sanitary landfills; analyzing metropolitan waste management, and performing cost evaluations for municipal wastewater treatment.

Reviewer

Journal of Applied Geography.

Ecology and Society.

Moira L. Zellner

PUBLICATIONS

Journal Articles

Zellner, M. L., T. L. Theis, A. T. Karunanithi, A. S. Garmestani, and H. Cabezas. In review. New Frameworks for Urban Sustainability Assessments: Linking Complexity, Information and Policy.

Zellner, M. L.; Riolo, R.; Rand, W.; Page, S. E.; Brown, D. G.; In progress. "Interactions Between Zoning and Location Preferences: Nonlinear Effects on Land Use Patterns and Utility Distribution."

Zellner, M. L.; In progress. "Planning With(in) Complexity: Using Agent-Based Models to Cope with Uncertainty in Water Management."

Zellner, M. L.; In progress. "Causes, effects and policy implications of urban sprawl: Perspectives from economics, environmental science and planning, and complexity."

Zellner, M. L.; Page, S. E.; Rand, W.; Brown, D. G.; Robinson, D. T.; Nassauer, J.; Low, B.; In review. "The Emergence of Zoning Games in Exurban Jurisdictions."

Brown, D. G.; Robinson, D. T.; An, L.; Nassauer, J. I.; **Zellner, M. L.**; Rand, W.; Riolo, R.; Page, S. E.; Low, B.; Wang, Z.; Forthcoming. Exurbia from the Bottom-Up: Confronting Empirical Challenges to Characterizing a Complex System. *Geoforum*.

Zellner, M. L.; 2007. "Generating Policies for Sustainable Water Use in Complex Scenarios: An Integrated Land-Use and Water-Use Model of Monroe County, Michigan." *Environment and Planning B, Planning and Design* **34** (4): 664-686.

Brown, D. G.; Page, S. E.; Riolo, R.; **Zellner, M. L.**; Rand, W.; 2005. "Path dependence and the validation of agent-based spatial models of land use." *International Journal of Geographical Information Science, Special Issue on Land Use Dynamics* **19** (2): 153-174.

Conference Proceedings

Zellner, M. L.; 2005. "Generating Policies for Sustainable Water Use in Complex Scenarios: An Agent-Based Model of a Monroe County, Michigan." *Proceedings of GeoComputation 2005, Ann Arbor; August 2005*.

Zellner, M. L.; Riolo, R.; Rand, W.; Page, S. E.; Brown, D. G.; Fernandez, L. E.; 2003. "The Interaction Between Zoning Regulations and Residential Preferences as a Driver of Urban Form." *Proceedings of 2003 UTEP Distinguished Faculty and Student Symposium, Urban and Regional Planning Program, University of Michigan*.

Rand, W.; Brown, D. G.; Page, S. E.; Riolo, R.; Fernandez, L. E.; **Zellner, M. L.**; 2003. "Statistical Validation of Spatial Patterns in Agent-Based Models." *Proceedings of Agent Based Simulation 2003, CIRAD, France*.

Rand, W.; **Zellner, M. L.**; Page, S. E.; Riolo, R.; Brown, D. G.; Fernandez, L. E.; 2002. "The Complex Interaction of Agents and Environments: An Example in Urban Sprawl." *Proceedings of Agent 2002, A Workshop on Social Agents: Ecology, Exchange and Evolution, University of Chicago*.

Castillo-Chavez, C.; Capurro, A. F.; Velasco-Hernández, J.; **Zellner, M. L.**; 1997. "El transporte público y la dinámica de la tuberculosis a nivel poblacional." *Proceedings of the VIII International Congress of Biomathematics Panama 97*.

Brauer, F.; Castillo-Chavez, C.; Capurro, A. F.; **Zellner, M. L.**; 1997. "Conceptos Básicos en Epidemiología Teórica." *Proceedings of the VIII International Congress of Biomathematics Panamá 97*.

Castillo-Chavez, C.; Capurro, A. F.; Feng, Z.; **Zellner, M. L.**; 1997. "Modelos para la dinámica de transmisión de la tuberculosis". *Proceedings of the VIII International Congress of Biomathematics Panamá 97*.

Zellner, M. L.; Capurro, A. F.; Jankilevich, S. S.; 1997. "Identificación de áreas de riesgo de contaminación atmosférica en la Ciudad de Buenos Aires." *Proceedings for the First International Seminar Air Quality Management in the City of Buenos Aires, General Direction of Environmental Policy and Control, Undersecretary of Environment, Secretary of Urban Planning and Environment; Government of the City of Buenos Aires*.

Moira L. Zellner

Working Papers

Zellner, M. L.; 1998. "Demographic Transitions and Equitable Water-Use in the Reconquista River Basin, Province of Buenos Aires (Argentina)." *In: 1998 Monograph Population-Environment Dynamics: Transitions and Sustainability*; The University of Michigan Population Environment-Dynamics NRE 545 and EIH 575, CD of all Web Monographs, 1992-1998.

Zellner, M. L.; Santana-Morant, D.; 1998. "Dynamics of HIV/AIDS in core groups in the presence of a transient population." *In: Studies in Theoretical Biology: A Collection of Undergraduate Research*; Biometrics Unit Technical Report BU-1419-M, M.T.B.I., Cornell University.

Zellner, M. L.; Capurro, A. F.; Jankilevich, S. S.; 1996. "Identificación de áreas de riesgo de contaminación atmosférica en la Ciudad de Buenos Aires." Technical Document N°10 Research and Environmental Development Series, Research Department, University of Belgrano, Argentina.

Internet Publications

Capurro, A. F.; **Zellner, M. L.;** 1998. "Case study on tuberculosis dynamics in urban centers." In GAIA: A Multimedia Tool for Natural Resources Management and Environmental Education; www.ess.co.at/GAIA.

Zellner, M. L.; Capurro, A. F.; 1998. "Case study on atmospheric pollution in the City of Buenos Aires." In GAIA: A Multimedia Tool for Natural Resources Management and Environmental Education; www.ess.co.at/GAIA.

Patents and software

Author of "USAFE: Urban Sustainability Framework for Energy." University of Illinois at Chicago. Copyright 2007.

Author of "WULUM: Water-Use Land-Use Model." University of Michigan. Copyright 2005.

Co-author of "ARMS-R: A Revised Model of SOME in Repast." Project SLUCE (Spatial Land-Use Change and Ecological effects), University of Michigan. 2004.

Co-author of "SOME: Sluce's Original Model for Exploration." Project SLUCE (Spatial Land-Use Change and Ecological effects), University of Michigan. 2002.

Co-author of "GAIA: A MultiMedia Tool for Natural Resources Management and Environmental Education." Environmental Software and Services GmbH. Copyright 1998.

Co-author of "AirWare: Application to the City of Buenos Aires." Environmental Software and Services GmbH. Copyright 1997.

PRESENTATIONS

Conferences, Panels and Workshops

Zellner, M. L.; Theis, T. L.; "New Frameworks for Urban Sustainability Assessments: Linking Complexity, Information and Policy." International Society for Industrial Ecology, Toronto, June 2007.

Zellner, M. L.; "Generating policies for sustainable water use: Applications of agent-based modeling to resource and land-use policy." Invited speaker at International Joint Commission for the Great Lakes Biennial Conference, Chicago, June 2007.

Zellner, M. L.; "Planning With(in) Complexity: Using Agent-Based Models to Cope with Uncertainty in Water Management." Invited speaker at Environmental Protection Agency (EPA), Cincinnati, February 2007.

Zellner, M. L.; "The Sustainability of Urban Environments: Perspectives from Industrial Ecology." Invited panelist at New Dimensions of Mobility and Accessibility, University of Michigan, Ann Arbor, November 2006.

Zellner, M. L.; "Planning With(in) Complexity: Using Agent-Based Models to Cope with Uncertainty in Water Management." Association of Collegiate Schools of Planning 2005, Ft. Worth; November 2006.

Zellner, M. L.; "Planning With(in) Complexity: Using Agent-Based Models to Cope with Uncertainty in Water Management." Illinois Water 2006, Urbana-Champaign; October 2006.

Moira L. Zellner

Zellner, M. L.; "Generating policies for sustainable water use: An application of agent-based modeling to integrated resource-use planning." Association of American Geographers Annual Meeting 2006, Chicago; March 2006.

Zellner, M. L.; "Generating Policies for Sustainable Water Use in Complex Scenarios: An Integrated Land-Use and Water-Use Model of Monroe County, Michigan." Association of Collegiate Schools of Planning 2005, Kansas City; October 2005.

Zellner, M. L.; "Generating Policies for Sustainable Water Use in Complex Scenarios: An Agent-Based Model of a Monroe County, Michigan." GeoComputation 2005, Ann Arbor; August 2005.

Zellner, M. L.; Page, S. E.; Rand, W.; Brown, D. G.; Nassauer, J., Robinson, D.; "The emergence of zoning policy games in exurban jurisdictions." Association of American Geographers Annual Meeting 2005, Denver; April 2005.

Zellner, M. L.; "Generating Policies for Sustainable Water Use in Complex Scenarios: A Simple Agent-Based Model of a Michigan County." Association of Collegiate Schools of Planning 2004, Portland; October 2004.

Zellner, M. L.; Rand, W.; Brown, D. G.; Nassauer, J.; Low, B.; An, L.; Riolo, R. L.; Page, S. E.; Robinson, D. T.; "The Effects of Heterogeneous Development Density Regulations on Exurban Development: An Agent-Based Model of Developer and Homebuyer Decision-Making." Swarmfest 2004, University of Michigan; May 2004.

Zellner, M. L.; Rand, W.; Brown, D. G.; Nassauer, J.; Low, B.; An, L.; Riolo, R. L.; Page, S. E.; Robinson, D. T.; "The Effects of Heterogeneous Development Density Regulations on Exurban Development." 2004 Association of American Geographers Centennial Meeting, Philadelphia; March 2004.

Zellner, M. L.; Riolo, R.; Brown, D. G.; Page, S. E.; Rand, W.; "Applications of Agent-Based Modeling to Land Use and Transportation." Workshop on Mobility in a Sustainable World, University of Michigan; June 2003.

Zellner, M. L.; Riolo, R.; Rand, W.; Page, S. E.; Brown, D. G.; Fernandez, L. E.; "The Interaction Between Zoning Regulations and Residential Preferences as a Driver of Urban Form." 2003 UTEP Distinguished Faculty and Student Symposium, Urban and Regional Planning Program, University of Michigan; April 2003.

Rand, W.; Brown, D. G.; Page, S. E.; Riolo, R.; Fernandez, L. E.; **Zellner, M. L.;** "Statistical Validation of Spatial Patterns in Agent-Based Models." Agent Based Simulation 2003, CIRAD, France; April 2003.

Rand, W.; Brown, D. G.; Page, S. E.; Riolo, R.; **Zellner, M. L.;** Fernandez, L. E.; "SOME: An Agent-Based Model of Suburban Sprawl." SwarmFest 2003, University of Notre Dame; April 2003.

Rand, W.; **Zellner, M. L.;** Page, S. E.; Riolo, R.; Brown, D. G.; Fernandez, L. E.; "The Complex Interaction of Agents and Environments: An Example in Urban Sprawl." Agent 2002, A Workshop on Social Agents: Ecology, Exchange and Evolution. Gleacher Center, University of Chicago; October 2002.

EDAW SSP '99; "Indian Creek Greenway Project." Public presentation of Master Concept Plan, Miami Beach, Florida; June 1999.

Zellner, M. L.; "Dispersión de contaminantes atmosféricos generados por el transporte automotor en la ciudad de Buenos Aires." Seminar on research in Private Universities, Consejo de Rectores de Universidades Privadas (CRUP), Argentina; June 1998.

Capurro, A. F.; **Zellner, M. L.;** "Dispersión de contaminantes atmosféricos generados por el transporte automotor en la ciudad de Buenos Aires." Workshop on Urban Atmospheric Pollution; INQUIMAE-UBA, Defensoría del Pueblo de la Ciudad de Buenos Aires, Argentina; August 1997.

Zellner, M. L.; Santana-Morant, D.; Hernández-Suárez, C. M.; "Dynamics of HIV/AIDS in core groups in the presence of a transient population." Colloquium of the M.T.B.I. for Undergraduate Research, Cornell University; August 1997.

Zellner, M. L.; Santana-Morant, D.; Hernández-Suárez, C. M.; "Dynamics of HIV/AIDS in core groups in the presence of a transient population." Invitational Mathematics Meeting - Student Presentations, National Security Agency; August 1997.

Moira L. Zellner

Zellner, M. L.; Santana-Morant, D.; Hernández-Suárez, C. M.; "Dynamics of HIV/AIDS in core groups in the presence of a transient population." Undergraduate Research Forum, Cornell University; July 1997.

Congresses and Technical Meetings

Brown, D. G.; **Zellner, M. L.;** Nassauer, J.; Low, B.; Rand, W. M.; Page, S. E.; Riolo, R. L.; Robinson, D. T.; "Land-Use Decision Making by Multiple Actors at the Urban- Rural Fringe and the Amount of Forest Cover." The 30th Congress of the International Geographic Union (IGU) 2004, Glasgow, UK; August 2004.

Miller, G.; Kobylinski, E.; Hunter, G.; **Zellner, M. L.;** Jiménez, L.; "Pollution Prevention - Global Markets Impact Buenos Aires." WEFTEC '98, Orlando; October 1998.

Zellner, M. L.; Capurro, A. F.; "Dispersión de contaminantes atmosféricos generados por el transporte automotor en la ciudad de Buenos Aires." Fourth Latin American Meeting of Mathematical Ecology, Valparaiso, Chile; August 1998.

Capurro, A. F.; **Zellner, M. L.;** Velasco-Hernandez, J. X. ; Castillo-Chavez, C.; "Public Transportation and the Transmission of Air-Borne Communicable Diseases." Fifth International Conference on Population Mathematical Dynamics, Zakopane, Poland; June 1998.

Capurro, A. F.; **Zellner, M. L.;** Garcia, F.; "Mathematical modelling of Tuberculosis epidemic." IV GAIA Meeting, UNAM - Mexico DF, Mexico; January 1998.

Capurro, A. F.; **Zellner, M. L.;** Garcia, F.; Terrasino, F.; Alonso, A.; Contardi, M.; "Framework for a GAIA Case Study: Air pollution in Buenos Aires." III GAIA Meeting, European Union, Brussels, Belgium; July 1997.

Zellner, M. L.; Capurro, A. F.; Jankilevich, S.S.; "Identificación de áreas de riesgo de contaminación atmosférica en la Ciudad de Buenos Aires." First International Seminar Air Quality Management in the City of Buenos Aires, Government of the City of Buenos Aires, Argentina; 1997.

Capurro, A. F.; **Zellner, M. L.;** Garcia, F.; Contardi, M.; Terrasino, F.; Alonso, A.; "Framework for a GAIA Case Study: Tuberculosis spread in a big city." II GAIA Meeting, Bangkok, Thailand; November 1996.

Zellner, M. L.; Capurro, A. F.; Jankilevich, S.S.; "Identification of Areas with Different Risk Levels of Air Pollution in the City of Buenos Aires." Poster presentation accepted for Ecological Summit '96, Copenhagen, Denmark; August 1996.

COMMITTEE SERVICE

UNIVERSITY OF ILLINOIS AT CHICAGO

Participant of NSF-IGERT on Urban Ecology

Chicago, IL
2006-present

Collaborating in curriculum development and student advising.

Member of the Institute for Environmental Science and Policy (IESP) Steering Committee, and Affiliate Faculty

2006-present

Member of Sustainable Mobility & Accessibility Research and Transformation (SMART) Project

2006-present

Collaborating in concept development, publicity and management of sustainable accessibility research initiatives, in collaboration with Ford Motors Co. and the University of Michigan.

Co-organizer of sessions on Complexity-based Research, Association of American Geographers

2006-present

Collaborated in organization of sessions and special panels.

Co-organizer of Industrial Ecology Workshop

2006

Collaborated in concept development and management, in collaboration with the Center for the Study of Complex Systems at University of Michigan, and the Delft Technical University.

Moira L. Zellner

UNIVERSITY OF MICHIGAN

Ann Arbor, MI

Co-organizer of "From Mobility to Accessibility: A Symposium and Workshop on Sustainable Transportation"

2004

Collaborated in concept development, publicity and management. Invited speakers included Anthony Downs (Brookings Institute), Hank Dittmar (Reconnecting America), John Pucher (Rutgers University), Sue Zielinski (Moving the Economy) and Susan Handy (UC-Davis).

Co-organizer of 2003 UTEP Distinguished Faculty and Student Symposia

2003

Initiated the application to the 2003 Rackham Distinguished Seminars Grant to host a series of four interdisciplinary symposia. Collaborated in concept development, publicity, and organization of sessions and receptions. Guest speakers included Anne Vernez Moudon (University of Washington), Helen Couclelis (UC-Santa Barbara) and Marina Alberti (University of Washington).

Co-coordinator of Doctoral Student Organization, Urban and Regional Planning Program

2001-2003

Welcomed new students, transmitted student concerns to faculty, and organized academic and social activities.

MEMBERSHIPS

Association of American Geographers

Association of Collegiate Schools of Planning

OTHER COMPETENCIES

Foreign languages

Complete fluency in Spanish (native language); understanding of Italian, Portuguese and French.

Computer skills

Operating Systems: Microsoft Windows and Linux

Geographic Information Systems: ArcView, IDRISI

Statistical Packages: SPSS

Computer Programming: C++, Objective C, Java, agent-based platforms (SWARM, RePast, NetLogo)

Hypertext: Netscape Communicator, Dreamweaver, Mozilla.