MUSE 2010 Application

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Project Title: Manuscript Preparation for A Social History of an Amazonian Colonization Zone

Student Researcher: Stephanie Torres

No IRB approval is necessary for this particular project; IRB approval was granted for the collection of data in 2007-08. No additional human subjects are involved (or have been involved) since that time.

Intellectual Merit: Although there has been much written about environmental change in Amazonia, there is a dearth of detailed case studies that trace the origins of environmental change over time. The mentor in this proposal has been collecting data and working on a research project that involves over 40 years of detailed social scientific research on a single case community in the Ecuadorian Amazon. The mentor in this proposal has a significant publication record already on research stemming from researchin in this case community (Bates 2009; Bates 2008; Bates 2007; Rudel, Bates, and Golbeck 2006; Bates and Rudel 2004; Bates 2002; Rudel, Bates and Mashinguiashi 2002a; Rudel, Bates, and Mashinguiashi 2002b). The work proposed for 2010 will continue this research in the form of the preparation of a book-length manuscript. The ability to compare characteristics of community members from 1969, 1987, 2007, and 2008 has already led to a variety of interesting findings, such as the change in primary economic activities from subsidized land clearing and cattle ranching in 1969 to production of cash crops for a local market in 1987 to migration for paid employment in 2007, to a gradual lack of local productive economic activity in the community to one of largely reproductive labor, particularly as migrants to the local capital have converted farms to weekend "fincas" that produce small amounts of fruits and vegetables that are consumed in the capital by the family itself. These changes are consistent with an environmental change known as a "forest transition" (cf. Rudel 2008), whereby a secondary forest is able to regrow as economic changes divert human labor away from activities associated with deforestation (e.g., lumber, ranching) and towards more urban occupations. The forest transition that is occurring in this community is coincident with renewed interest in the development of "carbon sinks" associated with international accords designed to mitigate climate change, such as recently in Copenhagen. However, the efficacy of such carbon sinks is predicated on the continued existence of carbon sinks (in this case, tropical forests). In areas such as the case community, as social and economic pressures on the forests diminish because of the growth in urban occupation, the potential for this area to serve as a stable carbon sink increases. A detailed study of a community such as this would benefit not only those who are concerned specifically about the Amazon basin, but for the growing number of academics, policy-makers, and lay individuals who seek long-terms strategies to moderate climate change. An advanced undergraduate researcher is appropriate at this stage, as such a student would be able to critically evaluate the theoretical and quantitative content included in the manuscript, as well as expose her to the type of complex and large-scale research that is expected of professional social scientist. Thus, as she makes her final decision to apply to either professional (public administration) or academic graduate programs, MUSE will allow her to make an informed judgment of the type of graduate work she would prefer to pursue. Role of Student and Mentor: Stephanie is the ideal candidate to work on this project at this point in time, as she has expressed a strong desire to pursue an academic (doctoral) graduate degree, but has limited exposure to the type of research that is expected in such programs. She will be a rising senior in sociology in Summer 2010, so she has already completed most of the coursework necessary to be an excellent assistant, and will be working closely with the mentor in the preparation of a manuscript of as-yet unnamed book-length manuscript. Most specifically, Stephanie will be assisting in three primary tasks, both of which will be done in tandem with the mentor's own work: (1) Literature review development; (2) Quantitative Analysis; and (3) Critical manuscript evaluation. Her appropriateness for each task is indicated below. For literature review development, Stephanie has already had much experience conducting comprehensive literature searches and will be able to determine if there are substantial gaps in the literature already reviewed. Moreover, as the literature review itself takes shape, she already

possesses the knowledge and practice of how to write a literature review that is coherent to nonspecialist audiences while being comprehensive in terms of sociological literature and theory. In addition, because of her background in economics (and especially development economics), she will be able to provide a valuable interdisciplinary view to this section. She also knows how to correctly cite sources and can double check these (a task which cannot be emphasized in importance enough in the publication process). She has acquired these skills in various classes in the sociology major. However, to bring her "up to speed" on some of the main debates in this subfield, Stephanie will spend the first week or so reading and familiarizing herself with this literature. For quantitative analysis, Stephanie will be critically evaluating both descriptive and inferential statistics that are used in the manuscript. To do so, she will often be working with the original data sets in order to reproduce the exact findings. Consequently, she needs specific quantitative skills that she demonstrated with ability in Sociology 302: Quantitative Research Methods (which she successfully completed with me in Spring 2009). This part of the project is most specialized, and will be most advantageous to Stephanie as she begins to apply to graduate schools in Fall 2010. Finally, Stephanie is an excellent writer and communicator, and her input on manuscript drafts will be critical. She will be both assessing basic writing skills (e.g., checking for grammar and proofreading) and for overall clarity and sociological argument. Moreover, she will be helping to prepare the proposal to be sent to publishers, and will help critically evaluate the appropriateness of publishers. Finally, as part of this project, Stephanie will be required to work not only with me, but with a senior researcher at Rutgers University, who is a collaborator on this project. This experience will allow Stephanie to work as part of a team, which will serve her well in her pursuit of a graduate degree. Moreover, exposure to the expectations of faculty at an institution that is geared principally towards research (as opposed to a primarily undergraduate institution like TCNJ) will allow Stephanie to accustom herself to the expectations of a doctoral program.

Broader Impacts: The mentor is already an established scholar in terms of peer-reviewed publications on this topic. However, she has not yet produced a book or a book-length manuscript on this topic (other than her dissertation). As she prepares for promotion to full professor in the next few years, a published book will greatly add to her professional reputation and visibility. Because the book will also be targeted to include a broader audience interested in climate change mitigation, this book would also increase her professional visibility in a larger and more varied circle of academics, policy-makers, and professionals. The impacts on the mentee are much more immediate. Stephanie is at an important crossroads in her academic career. In Fall 2010, she will have to decide to apply to doctoral programs in sociology or professional pubic administration programs. This mentor hopes that she will consider the former, as she is both a brilliant student and shows promise as a researcher. This opportunity will allow Stephanie to experience first-hand the type of work expected of professional academics, at both primarily undergraduate institutions at research institutions. In addition, as happened with Angelika Gutierrez during MUSE 2009, Stephanie would get the added experience of presenting her research to a broader audience in the form of a poster, which she will submit not only for the MUSE banquet, but at the Eastern Sociological Society meetings in Spring 2011 and for the Celebration of Student Achievement 2011. This type of experience helped Angelika secure a research assistantship with another faculty member in Spring 2010 in the area where she intends to pursue her post-graduate plans (public health). By allowing Stephanie this experience working on the mentor's data and manuscript, she will have a greater skill set to offer to future projects that are more closely aligned with her specific interests.

Works Cited

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- Bates, Diane C. 2007. "The Barbecho Crisis, la Plaga del Banco, and International Migration: Structural Adjustment in Ecuador's Southern Amazon." *Latin American Perspectives* 34,3: 108-122.
- Bates, Diane C. and Thomas K. Rudel. 2004. "Climbing the 'Agricultural Ladder': Social Mobility and Motivations for Migration in an Ecuadorian Colonist Community." *Rural Sociology* 69, 1: 59-75.
- Bates, Diane C. 2002. "Environmental Refugees?: Classifying Human Migration caused by Environmental Change." *Population and Environment: A Journal of Interdisciplinary Studies* 23,5: 465-477.
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- Rudel, Thomas K., Diane C. Bates, and Rafael Machinguiashi. 2002a. "Ecologically Noble Amerindians?: Cattle Ranching and Cash Cropping among Shuar and Colonist Smallholders in Ecuador." *Latin American Research Review* 37, 1: 144-159.
- Rudel, Thomas K., Diane C. Bates, and Rafael Machinguiashi. 2002b. "A Tropical Forest Transition?: Agricultural Change, Out-migration, and Secondary Forests in the Ecuadorian Amazon." *Annals of the Association of American Geographers* 92,1: 87-102.

APPENDIX 1: CV, deleted by request

APPENDIX 2: Budget

Student Stipend: \$2500 Student Housing: \$1357 Faculty Stipend: \$1000 Project Related Expenses: \$0

Total: \$4857

MUSE 2007 (Externally funded): With co-director Dr. Elizabeth Borland, I applied for and received an external grant of \$40,000 from the National Conference of Undergraduate Research to fund seven projects, involving seven faculty members and ten undergraduate students (see www.tcnj.edu/~trenton for more details). During this summer, I worked with two student research assistants, Tamaria Green and Regine Saintilien, to continue the study of the contaminated school site in North Trenton. During this summer period, we conducted interviews of neighborhood residents, school and School Construction Corporation officials, and officials from the NJ Department of Environmental Protection. In addition, we compiled relevant census data from North Trenton stretching back to 1890, did exhaustive newspaper reviews on the topic, and worked closely with the main community groups involved with this school site to develop two external grant proposals. Ms. Green and Ms. Saintilien presented their findings at the TCNJ Celebration of Student Achievement in 2008, at the Eastern Sociological Society meetings (New York, March 2008), and at the National Conference for Undergraduate Research (Salisbury, MD, April 2008). I presented preliminary results at the Southwestern Social Science Association (Las Vegas, April 2008), and am currently developing a manuscript titled "Routine Activities Theory and Environmental Crime: A Case Study of Illegal Dumping at a City School Construction Site". As a result of this research experience, Ms. Green pursued this topic as her senior thesis, earning a Phi Kappa Phi research award to complete her thesis research. The New Jersey Minority Academic Career Undergraduate Fellowship accepted Ms. Green into their program in 2007, providing substantial funding to complete her thesis and travel reimbursement to present her research (\$2500). Ms. Green graduated in 2008 and is currently enrolled and works as a research assistant at the Bloustein School of Planning and Public Policy, where she will complete her MCRP in 2010. Ms. Saintilien will graduate in 2009, and has applied to the Teach for America program, although she interested in eventually pursuing a degree in urban planning or community development.

MUSE 2008 (externally funded): With co-director Elizabeth Borland, I applied for and received a renewal grant of \$25,000 from the National Conferences of Undergraduate Research to fund seven projects, involving eight faculty members and seven undergraduate research assistants (see www.tcnj.edu/~trenton for more details). During this summer, I worked with colleague Elizabeth Borland and student research Susan Cosgrove to compile a list of Trenton-Ewing area social service organizations and to conduct a phone survey of a sample of these organizations to determine the level of interest in participating in community-based research with TCNJ students and faculty. This research was coordinated with the Bonner Center for Community Engagement, with the goal of facilitating the development of the CEL-II program (second, advanced Community Engaged Learning requirement for liberal learning). We found that most community organizations were willing and enthusiastic about working with TCNJ on such projects. Moreover, the database compiled has already been used by other faculty members at TCNJ to identify community partners for research. Ms. Cosgrove presented her findings at the MUSE poster fair in July, 2008 and will present it at the National Conference for Undergraduate Research in LaCrosse, WI in April, 2009. Ms. Cosgrove will graduate in Spring 2009 and has applied to ten doctoral programs in sociology. She expects to receive admissions notifications in March 2009.

MUSE 2009: In Summer 2009, I worked with Angelika Gutierrez to do three important things: enter a survey conducted in Summer 2008 that included demographic and economic data from a Amazonian community in Ecuador. This dataset was harmonized and combined with datasets from the same community based on data collected in the 1980s and 1990s. In addition, Angelika and I went to Rutgers University, where we reviewed the entire contents of an archive on materials on this research site. Among other things, we uncovered a dataset that was taken by the Peace Corps in 1969 that asked similar questions to the later surveys. This survey data was also prepared for entry into a database, but time ran out. Using the survey data from the 1990s and 2000s, Angelika prepared a report that compared different migration patterns during the two time periods. S he found significant gender differences in where people migrated—women were more likely to remain in Ecuador or go to Europe and then prinicipally in the later years, while men began to migrate to the United States in large numbers in the 1990s and continued to do so in 2008. Angelika presented this research in poster form at the MUSE forum in Summer 2009, and submitted this to both the Eastern Sociological Society meetings and will do so for the Celebration of Student Achievement. Now a junior, Angelika used this experience to secure another research position with a different faculty member in a field of study that is closer to her plans for graduate study (specifically in the area of public health). Angelika is also being encouraged to pursue a Minority Academic Careers grant for her senior year, AY 2010-2011.

APPENDIX 4: STUDENT APPLICATION

Name: Stephanie Torres

Major: Sociology; Minors: Economics and Communication Studies

On-Campus Housing Requested: Yes

The College of New Jersey has allowed me to grow and develop in various ways. I have been privileged to acquire valuable skills through my Harcourt Scholarship Mentor, EOF Program Advisor, and the staff at the Career Center. Currently, the MUSE program has made itself available to me for continued growth and academic development. I hope to participate in the MUSE Program in order of reaching my goal of obtaining a Ph. D in Sociology or Public Administration. My desire to earn a Ph. D has become a possible reality. I participated in the Latino Fellowship in the summer of 2009, where the professor emphatically drilled the thought of moving onto higher education. Growing up in my Puerto Rican family obtaining a college degree was a definite must, however, a masters or doctorate degree was not really mentioned as much. Thousands of people have achieved doctorates. Growing up never did I think I could graduate at the doctoral level. The MUSE program can allow me to taste the experience of doctoral studies.

Currently, two of my doctoral program interests are Sociology or Public Administration. I once thought making a difference consisted of travelling the world and helping everyone I possibly could, however, I can make a difference right here in America in the government or in the classroom. Academically, I look forward to work with Dr. Diane Bates to sharpen my writing and analysis skills of qualitative and quantitative data. I have had a class with Dr. Diane Bates and learned what an amazing writer she is. Assisting Dr. Bates to write her book on the demographic land use changes and their implications for carbon migration schemes in the Ecuadorian Amazon will allow me to develop writing and analysis being that both skills are important in the research field.

Economics plays an important role as to why groups of people migrate away-from and towards urban and rural areas. Fall semester of 2009, I took a class entitled Economics of Development, taught by Dr. Bozena Leven, which took an in depth look at the economic and social dynamics in 3rd world countries. Specifically, I studied Sri Lanka for a semester long research paper. What I learned, however, is applicable to Dr. Bates's country of interest because most 3rd world countries experience the same issues of poverty, changing demographics due to political instability and lack of resources. My background in economics, specifically in third world countries can provide an insightful understanding to the country of Ecuador. I also have worked with SPSS and from my understanding; data pertaining to the research on Ecuador has been synthesized into data sets on SPSS. In addition, I have taken courses geared towards land use and urban planning, which relate to the issues of Ecuador. Moreover, my knowledge in economics, SPSS, land use and urban planning can further assist Dr. Bates in her continued research and book writing.

MUSE is an incredible opportunity that I truly wish to experience. One on one training with a professor like Dr. Bates can only make me a better person academically. There are many sides to the research world I yearn to discover and take part in.