

PROMOTION RECOMMENDATION

The University of Michigan
School of Natural Resources and Environment

Ivette Perfecto, Associate Professor of Natural Resources and Environment, with tenure, School of Natural Resources and Environment, is recommended for promotion to Professor of Natural Resources and Environment, with tenure, School of Natural Resources and Environment.

Academic Degrees:

- 1989 Ph.D., Natural Resources, University of Michigan
- 1982 M.S., Biology, University of Michigan
- 1977 B.S., *Cum Laude*, Biology, Universidad Sagrado Corazón, Puerto Rico

Professional Record:

- 1996-present Associate Professor, SNRE, University of Michigan
- 2003-present Associate Faculty, Program in the Environment, University of Michigan
- 2005-present Visiting Faculty, El Colegio de la Frontera Sur (ECOSUR), Chiapas, Mexico
- 2004 Visiting Faculty, Universidad Federal de Minas Gerais, Brazil
- 2004-present Associate Faculty, Centro de Estudios de Desarrollo Agrario Rural, Universidad Agraria de la Habana, Cuba
- 1999-present Associate Faculty, American Culture, College of Literature Arts and Sciences, University of Michigan
- 2000-2002 Acting Director, Latina/o Studies Program, American Culture, College of Literature, Science and Art, University of Michigan
- 1996-1997 Visiting Faculty, Department of Entomology, Wageningen Agricultural University, The Netherlands
- 1989-1996 Assistant Professor, SNRE, University of Michigan

Summary of Evaluation:

Teaching – Professor Perfecto’s undergraduate and graduate courses teach students the principles of conservation biology, building from a foundation of ecological theory. Her courses exemplify how current ecological theory can be applied to the management and conservation of a wide range of tropical ecosystems as well as the numerous species of organisms which they encompass. She is a stimulating lecturer, often drawing on examples of her cutting-edge research in tropical agroforestry as well as the current work of her contemporaries. Her teaching evaluations are consistently in the top half, and mostly in the top quartile of evaluations. She is quite active in advising graduate students, and she has been highly instrumental in helping her students publish scholarly work in top-notch scientific journals. She currently supervises five Master’s students and five Ph.D. students. Upon graduation, her Ph.D. students have been placed in good academic positions. During the past 15 years, 24 Master’s students and seven Ph.D. students under her guidance have graduated. During her 16 years here, she has chaired nine dissertation committees, and co-chaired three. Among her students, several academic units are represented, reflecting the interdisciplinary nature of Professor Perfecto’s expertise.

Research – Professor Perfecto’s research focuses on the broad areas of tropical agroecosystems and conservation biology. Specifically, she has researched alternative methods of agricultural production, with emphasis on biological control agents—particularly the use of ants to control insect pests. She is clearly a productive scholar, publishing over three refereed journal articles per year since her promotion to Associate Professor in the leading journals in her field. She has also published six book chapters, four book reviews, and 15 articles in non-peer-reviewed publications. Most of Professor Perfecto’s research work is interdisciplinary, and is conducted in collaboration with other scientists, and most projects involve her graduate students. Of her publications, 43% include only one or two authors; the remainder (57%) involve three or more authors. Professor Perfecto has obtained 17 grants during the last 15 years. During the last five years, she has secured almost \$1 million in external funds. Her research funding has primarily come from National Science Foundation, U. S. Department of Agriculture, University of Michigan, the Land Institute, Chicago Zoological Society, and the Kellogg Foundation.

Recent and Significant Publications:

- Vandermeer, J., and I. Perfecto. In press. A keystone mutualism drives pattern in a power function. *Science*.
- Mascaro, J., I. Perfecto, O. Barros, D. Boucher, I. Granzow de la Cerda and J. Vandermeer. 2005. Above ground biomass accumulation in a tropical wet forest in Nicaragua following a catastrophic hurricane disturbance. *Biotropica* 37: 600-608.
- Armbrecht, I., L. Rivera and I. Perfecto. 2005. Reduced diversity and complexity in the leaf litter ant assemblage of Colombian coffee plantations. *Conservation Biology* 19: 897-907.
- Armbrecht, I., I. Perfecto, and J. Vandermeer. 2004. Enigmatic biodiversity correlations: ant diversity responds to diverse resources. *Science* 304:284-286.
- Perfecto, I., J.H. Vandermeer, G. Lopez, G. Ibarra-Nunez, R. Greenberg, P. Bichier, and S. Langridge. 2004. Greater predation of insect pests in a diverse agroecosystem: The role of resident Neotropical birds in shade coffee farms. *Ecology* 85: 2677-2681.
- Perfecto, I. and J. Vandermeer. 2002. The quality of the agroecological matrix in a tropical mountain landscape: Ants in coffee plantations in southern Mexico. *Conservation Biology* 16: 174-182.
- Perfecto, I., R. Rice, R. Greenberg, and M. Van der Voort. 1996. Shade coffee as refuge of biodiversity. *BioScience* 46: 589-608.
- Perfecto, I., and R. Snelling. 1995. Biodiversity and the transformation of tropical agroecosystem: ants in coffee plantations. *Ecological Applications* 5: 1084-1097.

Service – Professor Perfecto has given strong and consistent service to SNRE, UM, and other academic and community organizations. She served for two years as Acting Director of the Latina/o Studies Program and as a member of the Executive Committee for the International Institute. She served in a variety of capacities for such national scholarly organizations as the Ecological Society of America and the Latin American Studies Association. She is also active as a reviewer of submitted journal articles and proposals and is the Coordinating Lead Author for the IAASTD for Latin America and the Caribbean Region. She has given community service to

such organizations as the Pesticide Action Network, an environmental NGO that works to replace pesticides with ecologically sound alternatives.

External Reviewers:

Reviewer (A)

“Dr. Perfecto clearly stands in the forefront of the ‘new’ conservation biology, a scientifically rigorous endeavor with a focus on human-dominated ecosystems and sustainable agriculture production.”

Reviewer (B)

“Perfecto’s research is at the forefront of ecological research in agricultural ecosystems.”
“Her early work on biodiversity in agroecosystems was groundbreaking in that it directed attention to the agroecosystem as an unexpected repository of insect biodiversity, at times mirroring that found in natural forests.”

Reviewer (C)

“The publications of Professor Perfecto are excellent and this is based on several of her papers being published in Science and other highly ranked scientific journals.”

Reviewer (D)

“Dr. Perfecto has been an intellectual leader in the fields of Conservation Biology, Ecology and Entomology for many years, particularly with regards to research on the ecological basis for the maintenance of biodiversity and sustainable agroecosystems.”
“I have made a point of following the careers of a handful of individuals that I felt would make significant and extraordinary contributions to the disciplines of Ecology and Entomology. Ivette Perfecto is one of these few individuals.”

Reviewer (E)

“Her work was uniquely original in demonstrating scientifically and experimentally that ‘shade’ coffee resulted in substantial biodiversity and ecological benefits compared to ‘sun’ coffee.”
“I can think of no other contemporary conservation biologist who has had this kind of major impact.”
“The importance of Dr. Perfecto’s work for conservation cannot be overstated.”

Reviewer (F)

“Ivette Perfecto is a productive scientist and an international leader in biodiversity conservation in agroecosystems.”
“Ivette’s research is of fundamental significance for our understanding of how managed ecosystems can play a role in the conservation of biological diversity.”

Reviewer (G)

“She has had a profound influence on the advancement of conservation biology and agroecology, with significant contributions in ecology, environmental justice, and interdisciplinary scholarship.”

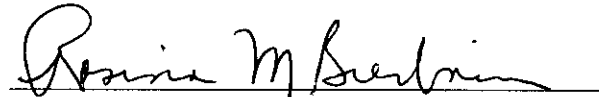
“Her innovative, synthetic approaches to fundamental and applied ecology have made landmark contributions to theory and practice.”

“Dr. Perfecto’s research program has been innovative, diverse and effectively integrates basic ecological research with practical application in conservation and agriculture.”

“Using an intensive research program in neotropical coffee agroecosystems, on which she has been publishing since 1990, she has made a range of contributions in entomology (ant behavior, dynamics, and biological control), tropical ecology (trophic interactions and diversity), theoretical biology (indirect effects, symmetry of competitive interactions, power functions and insect distribution).”

Summary of Recommendation:

Professor Ivette Perfecto is a highly productive and influential scholar, recognized both nationally and internationally as a leader in the study of biodiversity and conservation, with special emphasis on agroecosystems. Her research has led to changes in our understanding of applied ecology of agroecosystems. She teaches both broad and specialized courses, with excellent teaching evaluations, is active in advising graduate students, and shows exemplary service from the School and University level to the national and international arenas. It is with the support of the Promotion and Tenure Committee that I recommend her for promotion to Professor of Natural Resources and Environment, with tenure.



Rosina M. Bierbaum, Dean
School of Natural Resources and Environment

May 2006