PROMOTION RECOMMEDNATION
The University of Michigan
School for Environment and Sustainability

Inés Ibáñez, associate professor of environment and sustainability, with tenure, School for Environment and Sustainability, associate professor of environment, without tenure, School for Environment and Sustainability and College of Literature, Science, and the Arts, and associate professor of ecology and evolutionary biology, without tenure, College of Literature, Science, and the Arts, is recommended for promotion to professor of environment and sustainability, with tenure, School for Environment and Sustainability, professor of environment, without tenure, School for Environment and Sustainability and College of Literature, Science, and the Arts, and professor of ecology and evolutionary biology, without tenure, College of Literature, Science, and the Arts,.

Academic Degrees:

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| Ph.D. | 2006 | Duke University, Ecology, Durham, NC |
| M.S. | 1998 | Utah State University, Range Sciences, Logan, UT |
| B.S. | 1993 | Universidad Complutense de Madrid, Biology (Botany), Madrid, Spain Licenciatura de Grado, 1994 |

Professional Record:

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| 2019-present | Associate Professor of Environment, without tenure, Program in the Environment, School for Environment and Sustainability and College of Literature, Science, and the Arts |
| 2014 – present | Associate Professor, with tenure, School for Environment and Sustainability, University of Michigan, Associate Professor, without tenure, Department of Ecology and Evolutionary Biology, University of Michigan |
| 2008-2014 | Assistant Professor, School of Natural Resources and Environment, University of Michigan, Assistant Professor, Department of Ecology and Evolutionary Biology, College of Literature, Science, and the Arts, University of Michigan |
| 2006-2007 | Post-doctoral research scientist, University of Connecticut 1999-2000Research Associate, Duke University |
| 1998-1999 | Research Technician, San Diego State University |

Summary of Evaluation:
Professor Ibáñez has been a valuable colleague and faculty member at SEAS and has contributed to the research, teaching, and service mission of SEAS in important ways.  During her tenure at SEAS, Professor Ibáñez has established a robust research program on the response of forest ecosystems to global change, including climate change, fragmentation, invasive species, and pollution (nitrogen deposition).  Her research focuses on spatial and temporal forecasting of the response of organisms to global change.  She established a long-term experiment along a latitudinal gradient to investigate responses to projected future climate change by planting seedlings across the range of climatic conditions in the state of Michigan.  These experiments form the core of her empirical and observational research and continue to yield valuable data for her research program.

Teaching:  Professor Ibáñez is an excellent teacher who cares deeply about her students, consistently obtaining above-median scores and frequently above the 25th percentile in student evaluations.  Professor Ibáñez teaches three courses, two for upper-level undergraduate students and graduate students, and one for graduate students at SEAS.  Two of her courses include a hands-on component, whether field trips or wet or computer labs.  Her graduate-level course about ecological data analysis includes one-to-one tutorials with individual students.  All of her courses focus on how to apply scientific knowledge to policy

and management.  In addition to formal teaching at the University of Michigan, she offered a very popular workshop on Bayesian analysis of ecological data at the Ecological Society of America annual meetings.  Professor Ibáñez has been a very effective mentor to her students.  She has mentored three Ph.D. students, 18 Masters students, one undergraduate honors student, and two post-doctoral scholars.  She has also mentored and hosted a number of international students and scholars.  Her students are very successful at securing faculty positions, getting grants and fellowships, and entering doctoral programs.

Research:  Over the last six years, Professor Ibáñez has published several important synthetic papers that have raised her profile as one of the leading scholars in global change biology, with a particular focus in forecasting responses of forests to climate change.  Her research program uses a novel combination of large-scale experimentation and Bayesian modeling to project the ecological responses of forest plant species under projected future climate change.  This work is unique in its nature and scientific contribution because it uses rigorous approaches to quantitatively infer future ecological change from past and current ecological responses to change; this is one of Professor Ibáñez's novel scientific contributions.  Her research contributes to the vision and goals of SEAS by expanding the basic science of ecological knowledge while also providing critical understanding to help society protect global natural resources by maximizing and prioritizing applied science, including resource management and conservation.  Since starting at SEAS, Professor Ibáñez published 62 peer-reviewed papers, one National Academy of Science, Engineering and Medicine book, two book chapters, and six other reports and proceedings.  Of these, 32 peer-reviewed papers, the National Academy book, and three reports were published while she has been in the associate professor rank.  Her work appears in high-impact, high-quality journals.

Recent and Significant Publications:
Ibáñez, I., *Katz, D.W., *Peltier, D., *Wolf, S.M. and *Connor Barrie, B.T. 2014. Assessing the integrated effects of landscape fragmentation on plants and plant communities: The change of a multiprocess-multiresponse dynamics. *Journal of Ecology* 102: 882-895.
Early, R., Bradley, D., Dukes, J., Lawler, J., Olden, J., Blumenthal, D., Gonzalez, P., Grosholz, E., Ibáñez, I., Miller, L., Sorte, C. and Tatem, A. 2016. Global threats from invasive alien species in the 21st Century and national response capacities. *Nature Communications* 7: doi:10.1038/ncomms12485.
Ibáñez, I., Primack, R.B., Miller-Rushing, A.J., Ellwood, E., Higuchi, H., Lee, S.D., Kobori, H., and Silander, J.A. 2010. Forecasting phenology under global warming. *Phil. Trans. R. Soc. B.* 365:3247-3260.
Ibáñez I., Acharya K., Juno E., Karounos C., Lee B.R., McCollum C., Schaffer-Morrison, S., Tourville, J. 2019. Forest resilience under global environmental change: Do we have the information we need? A systematic review. *PLOS ON*E: 14(9):e0222207
 Wallingford, P.D, Morelli, T.L., Allen, J.A., Beaury, E.M., Blumenthal, D.M., Bradley, B.A., Dukes, J.S., Early, R., Fusco, E.J. Goldberg, D.E., Ibáñez, I., Laginhas, B.B., Vilà, M. Sorter, C.J.B. 2020. Adjusting the lens of invasion biology to focus on the impacts of climate-driven range shifts. *Nature Climate Change*.  https://doi.org/10.1038/s41558-020-0768-2
National Academies of Sciences, Engineering, and Medicine. 2019. Forest Health and Biotechnology: Possibilities and Considerations. Washington, DC: The National Academies Press. doi: htpps://doi.org/10.17226/25221.

Service:  Professor Ibáñez has contributed significantly to service at SEAS, the University of Michigan, and to the professional field.  At SEAS, she played a leadership role as the coordinator of the conservation ecology specialization, and has served on many committees including several faculty and upper administration searches.  Currently, she was elected by her peers to serve on the SEAS Executive Committee.  She has been an editor for three journals in her field and has reviewed manuscripts and proposals for many journals and funding agencies, as well as coordinated symposiums.

Professor Ibáñez has demonstrated a strong commitment to DEI issues and especially to supporting and mentoring women in science. For the last four years she has hosted in her lab several Doris Duke Conservations Scholars (a pipeline program hosted by SEAS) and two local minority students, one from Washtenaw Community College. Professor Ibáñez is particularly interested in the science education of women and recognizes the importance of installing a love of science in girls starting at an early age. To this end, she has participated in science education for girls, through the WISE initiative in middle and high schools, TIES (Teaching and Inspiring Environmental Stewardship), Girl Scouts, and FEMMES (Females Excelling More in Math, Engineering, and Science).

External Reviewers:

Reviewer A: "Professor Ibáñez's takes an expansive world view to her research. As highlighted in her case file, she both leads (Ibáñez et al. 20142) and contributes (Early et al. 20163) to valuable synthesis efforts. Her hierarchical meta-analysis (Ibáñez et al. 2014) is particularly noteworthy both for its results…and its methodology."

Reviewer B: "I am quite impressed with the quality of Professor Ibáñez's work. Under the umbrella of Global Change Biology, her focus on invasion biology has led to many significant contributions, as clearly evidenced by the very high number of citations her work receives (10 papers with more than 200 citations) … Her area of expertise is timely and important, her academic contributions are numerous and impactful, and her dedication to her discipline is obvious."

Reviewer C: "Dr. Ibanez is clearly a respected scholar in her field as evidenced by number and diversity of her research publications and the breadth and impact of journals in which she publishes… Given her research scholarship, involvement in teaching and service to SEAS, and professional societies, and commitment to translating and communication her research to broad audiences, Dr. Ibanez is certainly worthy of promotion to full professor in SEAS. The School has a unique and important mission to integrate '…research knowledge into real-world solutions with partners around the globe, addressing both the challenges and opportunities of sustainability' and Dr. Ibanez's record is clearly in accord with this and should serve as [a] model to others."

Reviewer D: "Professor Ibáñez has been a leader in research focused on understanding forest dynamics in the diverse but related contexts of how forests will respond to climate change, restoration, invasive species, and multiple interacting global change factors. … My department requires excellence in research, strength in teaching, and the development of an international reputation to be promoted to full professor, among other criteria."

Reviewer E: "The record of her performance as a scientist and educator is impressive and diverse. Her research is aimed squarely at the fundamental issue facing this generation of humans i.e., understanding the ecological effects of climate change in order to develop conservation strategies that might lead to sustainability of resource use."

Reviewer F: "With 49 publications in the last 12 years (4 per year) and around 2 million USA in funding (a bit less than 200k per year), she is also probably in the average of the group of professors in her field that I know. I would actually put Professor Ibáñez in the average or maybe a bit above average of the professors I know from Canada and the USA 14 years after obtaining her PhD and 12 years in Academia. … She publishes excellent papers and she is a very good scientist and professor, but there has not been yet any outstanding achievement that would put her clearly in the 'full professor' position according to my humble opinion."

Reviewer G: "In the last decade, Ines Ibáñez has contributed with some vital work to global change ecology, invasion biology, and conservation, with a focus on forest ecology, sustainable practice, and management – all hot topics in the current research agenda …. The paper on how extreme climatic events affect biological invasions, published in Frontiers in Ecology and the Environment, was also a pioneering one."

Reviewer H: "A signature contribution is her use of highly quantitative methods to develop forecasts that can inform environmental management and policy. Her work is timely and important, and tackles the outstanding environmental challenges of our time."

Reviewer I: "Actually, there are not so many peers that cover the range of subjects that are covered by Prof. Ibáñez, but when I look at the work that she published on plant range shifts and on phenology, she definitely is in the top category… Her accomplishments, international position, output and impact are all outstanding and when I compare her with colleagues who made similar promotions, she is performing in the same top league."

<u>Summary of Recommendation:</u>  Professor Ibáñez has an excellent publication record and impact in her field.  She is increasingly recognized as a leading scholar in forest ecology and global change biology, particularly in the area of forest forecasting with global change.  She has a demonstrated ability to engage meaningfully with students and provides substantial service within SEAS and to her profession.  We enthusiastically recommend Inés Ibáñez for promotion to professor of environment and sustainability, with tenure, School for Environment and Sustainability, professor of environment, without tenure, School for Environment and Sustainability and College of Literature, Science, and the Arts, and professor of ecology and evolutionary biology, without tenure, College of Literature, Science, and the Arts.

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