PROMOTION RECOMMENDATION

The University of Michigan School for Environment and Sustainability

Alexandra Paige Fischer, assistant professor of environment and sustainability, School for Environment and Sustainability, is recommended for promotion to associate professor of environment and sustainability, with tenure, School for Environment and Sustainability.

Academic Degrees

| Ph.D | 2007 | Oregon State University, Forest Resources (social science), Corvallis, OR |
|------|------|---|
| M.S. | 2003 | Oregon State University, Forest Resources (social science), Corvallis, OR |
| B.S. | 1994 | Hampshire College, Cultural Anthropology Amherst, MA |

Professional Record

| 2014 - present | Assistant Professor, School for Environment and Sustainability (formerly |
|----------------|--|
| | School of Natural Resources and Environment), University of Michigan |
| 2009 - 2014 | Research Social Scientist, USDA Forest Service, Pacific Northwest |
| | Research Station, Corvallis, OR |
| 2007 - 2009 | Faculty Research Associate (post-doc), Department of Forest Ecosystems |
| | and Society (formerly Department of Forest Resources), Oregon State |
| | University, Corvallis, OR |
| 2001 - 2007 | Graduate Research Assistant, Department of Forest Ecosystems and Society |
| | (formerly Department of Forest Resources), Oregon State University, |
| | Corvallis, OR |
| 1996 - 2001 | Program Director, Pacific Environment, Oakland, CA |

Summary of Evaluation:

<u>Teaching:</u> Professor Fischer's course offerings are valuable to SEAS as she is educating students in both case-based and experiential learning through application of both quantitative and qualitative methods. Professor Fischer has taught 13 individual offerings of four different courses, all of which she developed. Her performance in the classroom has only risen, and where students had had problems grasping some aspects of course methods, and she has sought support from the university writing center to address those problems. Professor Fischer's teaching and student evaluations have registered a broadly upward trend.

Professor Fischer identifies mentoring as a key component of her teaching portfolio. While she had few academic advisees until 2018 (an average of 2/year), since 2018 she has had 10 masters advisees and one Ph.D. student. In addition, Professor Fischer has employed more than 30 masters students to work with her on her research since 2014. Professor Fischer continually strives to provide better support for students conducting research.

Professor Fischer has served on four Interim Guidance Committees, and she currently she serves on one Ph.D committee, and chairs one Ph.D committee. She is currently co-

authoring a paper with that PhD student. Professor Fischer also has supervised four post-doctoral research fellows, and one of these was her co-author on two papers since 2014, with two more co-authored papers in review. He is now an assistant professor at The Ohio State University. Another post-doctoral research fellow in now an assistant professor at Appalachian State University. Two currently work with Professor Fischer.

Research: Professor Fischer studies the intersection of human behavior and forest change, with particular expertise on social and ecological dynamics around wildfires. Her body of research includes three major fields of study: individual-level adaptation behavior, social-ecological adaptation and adaptive capacity. She employs a range of qualitative and quantitative research methodologies, including focus groups, surveys, and network analysis.

Her research program focuses on-the-ground social dimensions of socio-environmental systems. Trends in her scholarship encourage us to anticipate that her work could have even greater impact in coming years. To date, the number of her scholarly publications is strong, given the topical focus of her scholarship, and recognition of her scholarship as indicated by citations is appropriate.

Professor Fischer is the author or co-author of 33 refereed articles, with sixteen of these published since she arrived at the university in 2014. Her leadership in this work is indicated by authorship: she is lead author of 23 and sole author of six of these papers. Her papers are published in a wide range of scholarly outlets, including leading field journals such as *Nature Sustainability* and *Global Environmental Change*. According to Google Scholar (as of 01/14/20), her research has been cited 1221 times; 949 of these are since 2014. Her h-index score is 20, i10-index is 25; very strong.

Since arriving at the University of Michigan in 2014, Professor Fischer has consistently applied for individual grants and served as a PI or Co-PI on multiple grants, raising a total of \$663,471. In addition, since 2014, Professor Fischer also participated in successful multiperson grants totaling \$8,495,749: one from Rackham for Case-Based Teaching with 17 other SEAS faculty (\$0 to Fischer); one NSF Post-doctoral Fellowship (\$0 to Fischer); and one to NSF LTER (Fischer share is \$28,897). Currently, she has a grant with USDA NIFA pending for \$498,830 for which she is the sole PI and one (with others) to the Hellenic Foundation for Research and Innovation for which she would receive no subaward.

Professor Fischer has joined in many multi-PI proposals, and more recently, has led team proposals to the NSF and has an individual proposal to USDA NIFA pending. While her efforts have been successful within the university, where her grant writing has realized \$453,550 of support for her work along with that of SEAS co-PIs Ines Ibanez and Bill Currie, and her research in the western U.S. has been supported by USDA as well as Oregon Fish and Wildlife (totaling \$209,921), her considerable efforts toward obtaining other external funding from other sources have been less successful, realizing \$28,897 in NSF support of her own work in 2014-19. In years ahead, we expect Professor Fischer to increase her success in external grant support as part of refining her research program to clarify and build its significance.

Recent and Significant Publications:

- Fischer, A. P. (2019). Adapting and coping with climate change in temperate forests. *Global Environmental Change*, *54*, 160-171. https://doi.org/10.1016/j.gloenvcha.2018.10.011
- Fischer, A. P. (2019). Characterizing behavioral adaptation to climate change in temperate forests. *Landscape and Urban Planning*, *188*, 72-79. https://doi.org/10.1016/j.landurbplan.2018.09.024
- Fischer, A. P., Klooster, A., & Cirhigiri, L. (2019). Cross-boundary cooperation for landscape management: Collective action and social exchange among individual private forest landowners. *Landscape and Urban Planning*, *188*, 151-162. https://doi.org/10.1016/j.landurbplan.2018.02.004
- Fischer, A. P. (2018). Forest landscapes as social-ecological systems and implications for management. *Landscape and Urban Planning*, *177*, 138-147. https://doi.org/10.1016/j.landurbplan.2018.05.001
- Fischer, A. P., & Jasny, L. (2017). Capacity to adapt to environmental change: evidence from a network of organizations concerned with increasing wildfire risk. *Ecology and Society*, 22(1), 23. doi:10.5751/ES-08867-220123
- Fischer, A. P., Spies, T. A., Steelman, T. A., Moseley, C., Johnson, B. R., Bailey, J. D., Ager, A. A., Bourgeron, P., Charnley, S., Collins, B. M., Kline, J. D., Leahy, J. E., Littell, J. S., Millington, J. D. A., Nielsen-Pincus, M., Olsen, C. S., Paveglio, T. B., Roos, C. I., Steen-Adams, M. M., Stevens, F. R., Vukomanovic, J., White, E. M., & Bowman, D. M. J. S. (2016). Wildfire risk as a socio-ecological pathology. Frontiers of Ecology and the Environment, 14(5), 1-9. https://doi:10.1002/fee.1283
- Fischer, A. P., Kline, J. D., Ager, A., Charnley, S. & Olsen, K. (2013). Objective and perceived wildfire risk and their influence on private forest owners' fuel treatment activities in Oregon's ponderosa pine region. *International Journal of Wildland Fire*, 22(8), 143-153. https://doi.org/10.1071/WF12164

Service: Professor Fischer has wisely focused her external professional service on the two societies with which she is most closely associated - the American Association of Geographers (AAG) and the International Symposium on Society and Resource Management (IASNR). Professor Fischer has organized or chaired 16 conference sessions at the AAG and IASNR. She served on the Board of the AAG Human Dimensions of Global Change Specialty Committee and on the Executive Committee of the IASNR and chair of their Professional Development Committee for three years. In addition, she has participated in another 13 conference presentations and given nine invited talks at universities, institutes, and USDA.

Professor Fischer served as an associate editor of the *Journal of Small-Scale Forestry* and the *Journal of Forestry* from 2013-2015, and has joined as an associate editor of *Frontiers in Climate* this year. She has served as a reviewer of proposals for the National Academy of Sciences, the National Science Foundation, the European Research Council, and the USDA-DOI Fire Science Graduate Research Award. She has reviewed articles for 15 different journals. Within UM, Professor Fischer has served on three SEAS' faculty search committees. She also produced a Michigan Sustainability Case study: https://www.learngala.com/cases/michigan-cherry-growers. This is an example of service to bring the practitioner and academic worlds closer together. In this same vein,

her tenure portfolio includes a rich list of outreach activities - educational, research assistance, webinars, writing, media, etc. with organizations that provided the sample for her 2019 key paper. These kinds of public engagement activities should not be overlooked as evidence toward promotion and tenure.

External Reviewers:

Reviewer A: "Although Forest Service collaboration certainly benefit the candidate's research program ...one would hope that the candidate will be able to obtain an externally-funded competitive grade as PI before too long. However, for an assistant professor with a 50% research appointment, this collection of research activity seems sufficient for promotion to associate professor."

Reviewer B: "Dr. Fischer is methodologically pluralistic, with an emphasis on qualitative and survey designs. Like many in her field, she is more willing to assert that patterns detected in the data are meaningful for science and practice. Given, Dr. Fischer's interest in 'behavioral response of humans' to environmental and social causes, I think she ought to work in the future on expanding her methological toolkit to incorporate more advanced designs for inferring causality from observational data. The qualitative and quantitative methods on which she relies most heavily are, in my opinion, poorly suited to such inferences, but would be an excellent complement to other method for causal inference."

Reviewer C: "Her contributions to theory are important to the developing and highly complex field of social ecological systems/coupled human natural systems. She has uncovered processes and relationships that can have a significant impact on natural resource conservation and management...I encourage you to grant her tenure without reservation and would be glad to have her as a colleague in my own department."

Reviewer D: "The work done by Dr. Fischer follows a systematic progression of deeper actionable understanding of wildfire governance and the decision making of private land owners related to forest fire management. Given the nature of the problem, her research will remain critical with new questions emerging when climate change eovles [sic]. The record of research and scholarship of Dr. Fischer is excellent for an assistant professor level and such a case would normally get tenure and promotion at my university. Dr. Fischer compares very favorably with other top scholar working in the same domain at roughly similar points in their careers. She has a growing national reputation, and has the potential to establish, in the future, a higher-profile international one as a thought leader who influences scholarship across a range of disciplines."

Reviewer E: "It is very clear from my own observations, reading Dr. Fischer's narrative, and reviewing the recommended journal articles that Dr. Fischer's work is of extremely high quality....Dr. Fischer's work is much more advanced and impactful than others in her peer group. [It is] narrow in its focus on forest resources but broad in its application of key research questions relevant to understanding human behavior. [Her articles are] exemplary for their clarity and transparency in methods...I am really impressed by the use of focus group data to

advance theory and understanding. I will be assigning this paper in my graduate research methods class."

Reviewer F: "[She] has developed an outstanding research profile, especially since her posting to SEAS. This profile places her in the forefront of other researchers addressing the forest fire-human adaptation nexus, and surely is the research leader among those in her professional career stage.... Without doubt, Dr. Paige Fischer would be awarded promotion and tenure at [my university], interestingly in at least three different programs: ... Indeed, it would not surprise me if one or more of these units might contact her about joining them."

<u>Summary of Recommendation</u>: Professor Fischer has made valuable contributions to the research and teaching missions of SEAS, as well as to the field of socio-ecological systems research, with great relevance to land management challenges relating to global climate change. Professor Fischer's scholarly focus contributes importantly to the mission of SEAS and the university's commitment to public engagement. It is with the support of the School for Environment and Sustainability Executive Committee that I recommend Alexandra Paige Fischer for promotion to associate professor of environment and sustainability, with tenure, School for Environment and Sustainability.

Jonathan T. Overpeck Samuel A. Graham Dean

School for Environment and Sustainability

May 2020