Approved by the Regents
May 19, 2022

PROMOTION RECOMMENDATION
The University of Michigan
School for Environment and Sustainability

Neil H. Carter, 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.	2013	Michigan State University, Fisheries and Wildlife
M.Sc.	2007	University of Michigan, School of Natural Resources and Environment Terrestrial Ecology,
B.S.	2003	University of California, San Diego, Ecology, Behavior, and Evolution

Professional Record:

2019– present	Assistant Professor, School for Environment and Sustainability, University of Michigan
2015–2019	Assistant Professor, Human-Environment Systems, Boise State University
2013–2015	Post-doctoral Fellow, National Socio-Environmental Synthesis Center, Annapolis, MD

Summary of Evaluation:

Teaching: Professor Carter's teaching and mentoring records are excellent. At SEAS, he has taught two graduate level courses, one large service course and a specialized course in his area of research. Evaluations for these courses demonstrate that students appreciate these two courses and Professor Carter as an instructor. One indicator of the success of his courses is teaching evaluations. He received consistently high quantitative scores for his courses at Boise State University and at SEAS. Professor Carter's scores for both Q1 and Q2 were at or above the university-wide median, all an indication that the courses have a positive reputation among students.

Professor Carter is currently advising two PhD students and three master's students in SEAS, with one of his PhD students having graduated last year (August 2021). In addition to serving as a committee member for two PhD students and three master's students, he has been the primary advisor for two master's projects, both with a strong international component. Professor Carter is an excellent mentor to his students and post-doctoral scholars and regularly publishes with them. His students also have a good record for getting externally funded fellowships and grants, and those that finished their degrees are well placed either in post-doctoral positions or professionally in government agencies or conservation organizations.

Research: Professor Carter is a conservation scientist who strives to address the global challenge of conserving wildlife while meeting the needs of human societies. He studies the interactions between wildlife and people using a variety of approaches and methodologies that derive from the disciplines of ecology, psychology, complex systems and geospatial data science. His

interdisciplinary research focuses on the underlying mechanisms that shape interactions between people and wildlife, and on how to improve conservation strategies using a data-driven approach.

Professor Carter has been a very productive scholar with 54 peer-reviewed publications, four book chapters and five manuscripts that are currently in revision or in review. He is first or lead author on more than half of these publications, many published in high-impact interdisciplinary journals such as *Science*, *Nature*, *PNAS*, and *Science Advances*, as well as in the top disciplinary journals of his field, demonstrating the high quality of his research output. The impact of his research impact is also demonstrated by the high number of citations of his work. According to Google Scholar, Professor Carter's work has been cited 2586 times, and he has an h-index of 22 and an i10-index of 33.

Beyond academia, Professor Carter's work and expertise have reached broader audiences, with presentations or training workshops to conservation organizations, including the San Diego Zoo's Institute for Conservation Research, the National Park Service, and the World Wildlife Fund. He also prepared a research brief for policymakers in Nepal about recommendations regarding road construction and management of tigers and other native species in the Chitwan National Park, a UNESCO World Heritage site. Professor Carter has extensive outreach activities that include numerous presentations and articles to reach practitioners in government and conservation organizations as well as the general public. His public media outreach includes coverage of his research in outlets like the *New York Times*, *Scientific American*, NPR, BBC and the Discovery Channel among hundreds of other media outlets.

During his career, Professor Carter has been able to secure approximately $2 million in external funding; of these, approximately $1.3M were awarded after his appointment in SEAS. Professor Carter has been very successful at leveraging internal funding to support his research, and is a prolific grant writer. Given this rate of proposal writing and success, I am confident that Professor Carter, moving forward, will continue to secure funding for his research and for supporting his students. Professor Carter has received substantial professional recognition in several forms, from invited presentations to the many collaborators, from academia, governmental and non-governmental organizations. These collaborations represent a strong form of professional recognition. All of these activities represent forms of respect and recognition from his academic and other professional peers.

Recent and Significant Publications:

Carter, N.H., Shrestha, B.K., Karki, J.B., Pradhan, N.M.B. and Liu, J., 2012. Coexistence between wildlife and humans at fine spatial scales. *Proceedings of the National Academy of Sciences* 109(38): 15360-15365 (IF=11.205).

Carter, N.H. and Linnell, J.D., 2016. Co-adaptation is key to coexisting with large carnivores. *Trends in Ecology & Evolution* 31: 575-578 (IF=17.7).

Ditmer, M.A. …, and N.H. Carter. 2021. Artificial nightlight alters the predator–prey dynamics of an apex carnivore. *Ecography* 44: 149-161 (IF=5.992).

Carter, N.H., Killion, A., Easter, T., Brandt, J., and A. Ford. 2020. Road development in Asia: range-wide risks to tigers. *Science Advances* 6: eaaz9619. DOI: 10.1126/sciadv.aaz9619.

Gaynor, K., Hojnowski, C.E., Carter, N.H., and J.S. Brashares. 2018. Human activity creates a more nocturnal natural world. *Science* 360: 1232-1235. DOI: 10.1126/science.aar7121.

Carter, N.H., Viña, A., Hull, V., McConnell, W., Axinn, W., Ghimire, D., and J. Liu. 2014. Coupled human and natural systems approach to wildlife research and conservation. *Ecology and Society* 19:43. DOI: 10.5751/es-06881-190343.

Service: Professor Carter been very active in professional service in ecology and wildlife biology. He regularly reviews manuscripts for journals in his field, and has reviewed proposals for NSF. He is an associate editor for the journal *Conservation Science and Practice* (IF=3.23) since 2019, where he served previously as a guest editor for a special issue. He also served as a guest editor for a special issue of the journal *Environmental Research Letters* (IF=6.8) published in 2019, and last year has become subject matter editor for the journal *Ecological Applications* (IF=4.66), one of the premier journals in the field of ecology. In addition, he co-organized and moderated a symposium on human-carnivore coexistence at the North American Conference of Conservation Biology.

At SEAS and UM, Professor Carter is a member of the DEI subcommittee on (dis)Ability and Accessibility. With a graduate student, he co-organized the first student chapter of the Society for Conservation Biology in SEAS. He has regularly participated in student recruitment activities and has served as a proposal reviewer for the Michigan Institute for Data Science's Propelling Original Data Science program, a university-wide competition. Professor Carter has demonstrated commitment to DEI activities by participating as a mentor and advisor in two undergraduate programs that targeted underrepresented students in the STEM fields, and in his NSF-CAREER grant proposal (pending), he included funding to provide research experience to four Indigenous students from Tribal Colleges or Universities.

External Reviewers:
Reviewer A: "There exists a cohort of [junior] ecologists working in approximately the same area, and indeed, Neil has coauthored with many of these … All are highly productive [junior] scholars and Neil ranks well amongst them, say in the top 10%."

Reviewer B: "I find the research well executed and that it has contributed substantially to a better understanding of the areas that he defines in his research statement. In particular, he has developed a clear niche in understanding the two-way interactions between humans and conflict-prone wildlife species, including subtle effects such as the way that night time light from humans can alter predator-prey interactions."

Reviewer C: "I would identify him as a rising star, one that is rapidly developing a national and international scholarly reputation... I look forward to continued interactions with Dr. Carter and following his career as it advances. From my perspective, the University of Michigan is very fortunate to have him!"

Reviewer D: "I would say that Dr. Carter is in the top 5-10% of his peer group working in this field. His publication record is impressive and growing, his recent funding record excellent, and the importance of his research is well recognized."

Reviewer E: "Carter reflects a highly productive conservation scientist working at the frontiers of socio-ecological research that is both meaningful in solving real-world environmental

problems, while meeting critical needs for quantitative data and advanced methodologies. I strongly support his case for promotion and tenure."

Reviewer F: "…I am very much impressed by his tenure package and his accomplishments, and regard his work highly. Dr. Carter has already accomplished what few ecologists accomplish ever in their career: he has made himself a name that is widely recognized in the field! On top of that, he has been able to establish himself as a leading scholar in the very crowded field of large carnivore conservation, and that is both astonishing and a clear indication of his excellence."

Reviewer G: "Dr Carter has been a true interdisciplinary researcher … His research on reciprocal interactions integrates behavioral ecology, human dimensions, and complex systems theory, and investigates the factors that limit or facilitate sustainable coexistence between humans and wildlife."

Reviewer H: "Neil comes very close to an ideal of the kind of interdisciplinary scholar that those of us working in and administering *interdisciplinary* environmental institutions have long struggled to build-up in our faculty ranks… I see him rising to be among the few preeminent senior scholars in the field of socio-ecology of wildlife conservation."

Summary of Recommendation: Professor Carter has demonstrated strong scholarship in areas of wildlife ecology and coupled human-natural systems. He has established a well-funded and solid research program with strong impact. In addition to his service to SEAS, UM and society at large, he has also been an excellent teacher and mentor of undergraduate and graduate students, as well as an excellent mentor of post-doctoral research fellows. I enthusiastically recommend Neil H. Carter 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 2022