## PROMOTION RECOMMENDATION The University of Michigan College of Literature, Science, and the Arts

Jacob E. Allgeier, assistant professor of ecology and evolutionary biology, College of Literature, Science, and the Arts, is recommended for promotion to associate professor of ecology and evolutionary biology, with tenure, College of Literature, Science, and the Arts.

#### Academic Degrees:

Ph.D.	2013	University of Georgia, Athens, Georgia
B.S.	2001	Centre College, Danville, Kentucky

## Professional Record:

2017-present	Assistant Professor, Ecology and Evolutionary Biology, University of
	Michigan
2016-2017	Post-doctoral Research Associate, University of California, Santa Barbara
2014-2016	National Science Foundation Post-doctoral Fellow in Biology, University of
	Washington
2013-2014	Post-doctoral Research Associate, North Carolina State University

## Summary of Evaluation:

<u>Teaching</u>: Professor Allgeier's teaching contributions include an upper-level undergraduate course, Coastal Ecology and Sustainability, and an upper-level undergraduate and graduate course, Ecosystem Ecology. He co-teaches General Ecology, a required course for the EEB major. Both student evaluations and peer teaching observations indicate that Professor Allgeier is an effective, engaging, and enthusiastic instructor. In his research laboratory, he has advised three doctoral students, two master's students, two post-doctoral researchers, and sixteen undergraduate students, two of whom are currently working on honor theses and one of whom has published a peer-reviewed paper as first author. His graduate students and post-doctoral fellows is now an assistant professor at another university. Professor Allgeier has also served as a member of thirteen additional Ph.D. and M.S. student committees.

<u>Research</u>: Professor Allgeier is an ecologist who works on coastal marine ecosystems including seagrass beds and coral reefs. His research has contributed several novel findings, and he is best known for showing how the nutrients that support high productivity in nearshore marine ecosystems are controlled by the movement of fish from reef to reef, and their excretion of nutrients. He has a very strong publication record, with twenty-three papers published in peer-reviewed journals since joining the UM faculty. Of these, he is first author on ten and corresponding author (last author) on another five; in his field the first and last authors typically have a dominant role in the conception, execution, and writing of the research. Professor Allgeier's research excellence has been recognized with a highly competitive David and Lucile Packard Fellowship for Science and Engineering award and selection as an Ecological Society of America Early Career Scientist. He is also supported by funding from the National Science

Foundation. Professor Allgeier's accomplishments to date suggest that he will continue doing ground-breaking work in ecosystems ecology and being an active contributor to EEB and UM.

## Recent and Significant Publications:

- Cline, T. W. & Allgeier, J.E. (2022). Fish community structure and dynamics are insufficient to mediate coral resilience. *Nature Ecology and Evolution*, 6(11), 1-10.
- Allgeier, J.E., Weeks, B.C., Wenger, S.J., Wale, N., Schiettekatte, N.M.D., Villéger, S, Burkepile, D.E., Munsterman, K.S. & Parravicini, V. (2021). Phylogenetic conservativism determines nutrient dynamics of coral reef fishes. *Nature Communications*, 12(1),1-9.
- Allgeier, J.E. (2021). Nutrient Stoichiometry of fishes and invertebrates in Caribbean coastal ecosystems. *Ecology*, *102*(12), e03533.
- Allgeier, J.E., Andskog, M., Hensel, E., Appaldo, R., Layman, C.A., & Kemp, D. (2020). Rewiring coral: anthropogenic nutrient shift coral-algal nutrient and energy pathways toward algal dominance. *Global Change Biology*, 26(10), 1–14.

<u>Service</u>: Professor Allgeier has served on important standing committees in the department, including the Executive Committee, Undergraduate Affairs Committee, and Social Committee. He has also participated on search committees for LSA Collegiate Fellows in EEB and for the UM Biological Station (UMBS) director. He was an organizer for EEB's Early Career Scientist Symposium in 2018. Professor Allgeier regularly reviews papers for top journals in his field and serves on the editorial boards of *Journal of Animal Ecology* and *Food Webs*. Professor Allgeier has also served on a grant review panel for the National Science Foundation.

# External Reviewers:

Reviewer (A): "I believe [Professor Allgeier] is one of the most creative and promising pioneers of his generation at the dynamic interface between foundational research in ecology and biodiversity, and novel, substantive practical applications of that research in human-natural systems...his development of major, long-term investments in conservation-related marine research that also engage local communities in Haiti and the Bahamas are extremely creative, ambitious, and important."

Reviewer (B): "Dr. Allgeier is also highly regarded for his large-scale experimental work, which is challenging to conduct even in the best of times, and is critical to our understanding of realworld ecosystems. Collectively, this body of research demonstrates Dr. Allgeier's ability to use an array of tools to understand ecological and evolutionary processes and their relevance to management and conservation."

Reviewer (C): "I particularly like the primary focus that [Professor Allgeier's] work brings to the natural history of the organisms involved and his extensive use of experimental methods that go beyond the more conventional approach of just measuring natural ecosystems. Despite the focus on natural history however, his work benefits greatly from being very solidly linked to more general theoretical approaches that give broader context to his work."

Reviewer (D): "I am impressed by [Professor Allgeier's] creativity and the breadth of his interests, experiences, and skills. Not only is he a productive scientist publishing significant

research in highly respected journals, but, as his videos and blogs demonstrate, he is creative and enjoys engaging with the local community, who readily work with him."

Reviewer (E): "As a pioneer and accomplished scientist, Dr. Allgeier has literally 'gone to the depths' in the way he has sought training and acquired data…Dr. Allgeier has made substantial contributions to supporting [junior] scientists and is continuing to do so, having engaged many students in environmental education…Dr. Allgeier is an effective teacher and scholar…"

Reviewer (F): "Dr. Allgeier has contributed a distinct body of literature exploring the ecosystem implications of biodiversity loss on coral reefs. His scientific accomplishments have effectively bridged the community/ecosystem divide that remains in much of ecology. The quality of Dr. Allgeier's contributions are reflected in the high caliber of the journals he routinely publishes in; notably journals such as *PNAS*, *Global Change Biology*, and the various *Nature* journals."

## Summary of Recommendation:

Professor Allgeier is an emerging leader in marine ecosystem ecology, working to understand the mechanisms that drive the production of biomass. He effectively teaches undergraduate and graduate students in the classroom and in his research laboratory. Professor Allgeier has provided outstanding service to his department, the broader university, and to his professional community. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor Jacob E. Allgeier be promoted to the rank of associate professor of ecology and evolutionary biology, with tenure, College of Literature, Science, and the Arts.

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Anne Curzan, Dean Geneva Smitherman Collegiate Professor of English Language and Literature, Linguistics, and Education Arthur F. Thurnau Professor College of Literature, Science, and the Arts

May 2023