

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

L. Lacey Knowles, assistant professor of ecology and evolutionary biology and assistant curator, Museum of Zoology, College of Literature, Science, and the Arts, is recommended for promotion to associate professor of ecology and evolutionary biology, with tenure, and associate curator, Museum of Zoology, College of Literature, Science, and the Arts.

Academic Degrees:

1999	Ph.D.	State University of New York, Stony Brook
1993	M.S.	University of South Florida
1989	B.S.	University of North Carolina

Professional Record:

2003 – present	Assistant Professor, Department of Ecology and Evolutionary Biology, and Assistant Curator, Museum of Zoology, University of Michigan
1999 – 2002	Postdoctoral Fellow, Department of Anatomy and Neurobiology, Washington University School of Medicine

Summary of Evaluation:

Teaching – Professor Knowles is an exceptionally committed and effective instructor. She teaches insect biology and principles of evolution and students' scores and comments for these courses have been excellent. She conveys an infectious enthusiasm and employs a range of active teaching methods in her lectures, field trips, laboratory exercises, and discussion to engage the students in these courses. She has chaired or co-chaired five doctoral committees and served on seven additional committees. She also co-chaired one masters committee and mentored seven undergraduate students.

Research – Professor Knowles is an evolutionary biologist whose research centers on the fundamental area of the genesis of new species. She is an extraordinarily promising scholar who is recognized as an influential leader in speciation studies. She has made major contributions to the development of “statistical phylogeography,” a term she coined in her early work. Viewed collectively, Professor Knowles' body of work successfully synthesizes population genetics, phylogenetics, and ecology to an exceptional degree. She has won an exemplary level of external funding and her publication record has been outstanding. She has also been invited to participate in an unusually large number of symposia and workshops and is presently serving as an associate editor for three prominent journals.

Recent and Significant Publications:

- “Delimiting species without monophyletic gene trees,” with B. C. Carstens, *Systematic Biology*, 56, 2007, pp. 1-9.
- “Estimating a geographically explicit model of population divergence,” with B. C. Carstens, *Evolution*, 61, 2007, pp 477-493.
- “Importance of genetic drift during Pleistocene divergence as revealed by analysis of genomic variation,” with C. L. Richards, *Molecular Ecology*, 14, 2005, pp. 4023-4032.

Knowles, L.L. & W.P. Maddison. 2002. "Statistical phylogeography," with W. P. Madison, *Molecular Ecology*, 11, 2002, pp. 2623-2635.

Curation - Professor Knowles has established herself as a first rate curator, with innovative projects in biodiversity informatics and a robust collections-based research program. Her work on establishing digital resources in the Insect Division is a major step forward for that collection, and will serve as a model for curators in other institutions as well as the Museum of Zoology. Notably, she involves graduate and undergraduate students in field work, curation, and databases, giving them training that is virtually unobtainable in other peer universities. She is actively growing the collection in taxa and geographical areas that greatly strengthen the value of the insect collections.

Service - Professor Knowles has provided noteworthy service on the departmental Executive Committee, Admissions Committee, Graduate Student Evaluation Committee, and Seminar Committee. She serves as associate editor for three of the most prominent journals in her field and on the council of Systematic Biology. She has served on National Science Foundation panels and reviews grants applications for national and international funding agencies.

External Reviews:

Reviewer (A)

"Lacey has been a fantastic addition to the field of phylogeography, and she has had a remarkable impact on systematics as well. ... I do believe Lacey would receive tenure at [my institution]. ... She is a leader in a field that she has helped create - statistical phylogeography - and her impact shows no evidence of slowing down."

Reviewer (B)

"...no single scholar in her cohort...has produced as much excellent work, been invited to contribute such important reviews, and received such substantial support for her work. ... I would be hard pressed to name a more productive curatorial contribution than that of Dr. Knowles."

Reviewer (C)

"Lacey is among the best of her generation of Evolutionary Biologists. ... In a relatively short time she has created a productive and highly promising research program, and gained a high reputation as a scientist."

Reviewer (D)

"...I would rank Lacey solidly above many tenured and well-respected faculty in this field... If I were to compile a list of the most significant articles on statistical phylogeography of species divergence, indeed, Lacey would solidly top that list. ...Lacey's dedication to mentoring and service are well-known throughout the field."

Reviewer (E)

"Lacey is an innovator and leader in this field and is at the head of the pack of researchers who have been working for similar lengths of time in this area. ... Lacey's publication record is truly amazing."

Reviewer (F)

“...she has proposed a new conceptual framework to extract genetic information on species divergence even when lineage sorting is incomplete...”

Reviewer (G)

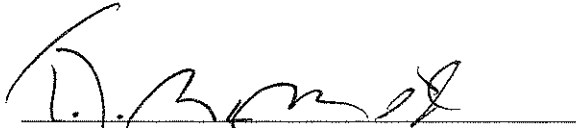
“...modern biology needs always to be pushed to include all of life, and Lacey’s work should be valued for its contribution to this effect. ... Not only has she already made a number of important contributions, her trajectory looks especially promising.”

Reviewer (H)

“Lacey’s record of competitive funding, including two full NSF grants and several REU supplements, is excellent, and her abilities are clearly being recognized: she receives plentiful invitations to speak, is an associate editor of three journals, and is an elected member of the council of the Society of Systematic Biologists.”

Summary of Recommendation:

Professor Knowles’ contributions to research, teaching, mentoring, curation, and service are all outstanding. The Executive Committee and the College of Literature, Science, and the Arts and I recommend that Assistant Professor L. Lacey Knowles be promoted to the rank of associate professor of ecology and evolutionary biology, with tenure, and associate curator, Museum of Zoology, in the College of Literature, Science, and the Arts.



Terrence J. McDonald
Arthur F. Thurnau Professor,
Professor of History, and Dean
College of Literature, Science, and the Arts

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