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

Approved by the Regents
May 20, 2010

Thomas F. Duda, Jr., 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:

Ph.D.	1996	Harvard University
M.A.	1992	San Francisco State University
B.S.	1988	Texas A & M Galveston

Professional Record:

2004 – present	Assistant Professor, Department of Ecology and Evolutionary Biology, and Assistant Curator of Mollusks, Museum of Zoology, University of Michigan
2004 – present	Research Associate, Smithsonian Tropical Research Institute
2003 – 2004	Postdoctoral Research Associate, University of Washington
1999 – 2002	Tupper Fellow, Smithsonian Tropical Research Institute

Summary of Evaluations:

Teaching – Professor Duda has successfully established a distinctive and valued instructional role within the biology program. His major contribution has been teaching a required large-enrollment core course for most biology concentrations. He has continually refined and upgraded his teaching skills to the point where his teaching evaluations compare favorably to the senior colleagues with whom he shares that course. He has contributed to graduate teaching and has been an outstanding mentor of many undergraduate researchers. He also developed a significant outreach program for minority undergraduates from Guam and American Samoa to experience research both in the field and in the lab at Michigan.

Research – Professor Duda's research program engages with fundamental questions in evolutionary biology on how genotypes map to phenotypes, using the extremely diverse predatory cone snails in Pacific Ocean coral reefs. This system is ideal for developing these linkages because of the direct mapping between genetically-based variation in the highly potent neurotoxins the snails use to paralyze prey and the ecological interactions between predators and prey. Professor Duda's highly integrative research program thus spans ecological analysis of snail diets to molecular evolution of venoms, how both vary across large geographic areas and ties these results to a solid phylogenetic framework of evolution. He publishes his findings in high-profile scientific journals and he has been successful in attracting both graduate students and significant levels of external funding.

Recent and Significant Publications:

"Ecological release and venom evolution of a predatory marine snail at Easter Island," with T. Lee, *PLoS ONE*, 4(5), 2009, p. e5558.

"Differentiation of venoms of predatory marine gastropods: Divergence of orthologous toxin genes of closely related *Conus* species with different dietary specializations," *Journal of Molecular Evolution*, 67, 2008, pp. 315-321.

"Did tectonic activity stimulate Oligo-Miocene speciation in the Indo-West Pacific?" with S. T. Williams, *Evolution*, 62, 2008, pp. 1618-1634.

"Explosive radiation of Cape Verde *Conus*, a marine species flock," with E. Rolán, *Molecular Ecology*, 14, 2005, pp. 267-272.

Curation – Professor Duda serves as one of two curators in the Mollusk Division of the Museum of Zoology, which houses a world-class research collection with several million specimens. With the assistance of undergraduate students, he completely overhauled the wet collection (specimens preserved in ethanol), which can provide DNA for modern molecular studies, and built a research collection of the predatory snail genus *Conus,* a diverse genera of marine gastropods of intense interest to the biomedical community because of the highly potent neurotoxins they use to paralyze prey.

Service – Professor Duda has served on numerous committees in his department, including the Executive Committee (an elected position), the Admissions Committee, the Nominating Committee, and the Seminar Committee. He also serves as councilor-at-large of the American Malacological Society, and reviews manuscript and grants for a wide range of journals and granting agencies.

External Reviews:

Reviewer (A)

"This substantial record clearly is indicative of an active and dedicated researcher. Dr. Duda appears to have carved out a highly visible and recognizable niche for himself in the fields of evolutionary biology and marine ecology."

Reviewer (B)

"...he is the cutting edge specialist in the field on 'evolutionary biology in Conidae' and more generally he is a worldwide recognised, leading specialist in marine evolutionary biology. His publication record is unquestionably outstanding"

Reviewer (C)

"This linking of genotype to ecologically-relevant phenotype is a Holy Grail of ecological genomics research and Duda is slowly developing a system that I believe will be one of the few non-model organisms in which such links will be convincingly made."

Reviewer (D)

"Thanks to his work, the mega-diverse genus *Conus* is a model system for understanding adaptive radiation, speciation, and marine biogeography. ... Dr. Duda studies one of the most fascinating examples of diversification on the planet and he does so with extraordinary elegance and sophistication."

Reviewer (E)

"Tom's research spans systematic, molecular ecology and molecular evolution and is a fine example of the value of an integrated approach to understanding the evolution of predator-prey interactions... ...his research also addresses broader questions of the origin and maintenance of hyper-diverse marine taxa. ... During his term as an Assistant Prof. Tom has built his research system nicely, addressing questions at multiple levels and establishing the methods and much of the background information needed to pursue his long-term goals."

Reviewer (F)
"Cones are a superb model system, and Tom has taken good advantage of the promise they hold. … This system, already a celebrated example…of ecological release, has become so much more interesting by this exploration of underlying potential adaptation on a genetic level. … His current research push is novel, highly promising, and leading to good output of high profile papers."

Reviewer (G)
"Dr. Duda is at the cutting edge of those trying to understand the ecological and molecular diversification of traits that shape specialization in predatory species. There are very few scientists who have the breadth of expertise and drive needed to collect samples over very broad geographic areas, evaluate the phylogenetic and phylogeographic relationships among the sampled populations, and begin to evaluate the pattern of molecular diversification in the traits that are the focus of selection (e.g., venom composition)."

Reviewer (H)
"Tom Duda's past record is one of scientific originality and high productivity, and I am confident that he will continue to envision and plan valid and exciting research projects and carry them through to completion and publication in first-rate journals in the future. I strongly believe that he merits promotion to associate professor and tenure…"

Summary of Recommendation:
Professor Duda has established a significant reputation as a scholar. He is an excellent teacher and mentor of students, and he has made important contributions as a curator. His service contributions have been strong. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor Thomas F. Duda, Jr. be promoted to the rank of associate professor of ecology and evolutionary biology, with tenure, and associate curator in the Museum of Zoology, in the College of Literature, Science, and the Arts.

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

May 2010