

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

Approved by the Regents

May 14, 2009

Paul V. Dunlap, associate professor of ecology and evolutionary biology, with tenure, College of Literature, Science, and the Arts, is recommended for promotion to professor of ecology and evolutionary biology, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D. 1984 University of California at Los Angeles  
B.Sc. 1975 Oregon State University

Professional Record:

2001 – present Associate Professor, Department of Ecology and Evolutionary Biology,  
University of Michigan  
2001 Associate Professor, Department of Biology, University of Michigan  
1996 – 2000 Associate Professor, Center of Marine Biotechnology, University of  
Maryland  
1992 – 1996 Associate Scientist, Biology Department, Woods Hole Oceanographic  
Institute  
1989 – 1992 Assistant Scientist, Biology Department, Woods Hole Oceanographic  
Institute  
1987 – 1989 Assistant Professor, Department of Biology, New Mexico State University  
1986 Course Assistant, Microbial Diversity Course, Woods Hole Marine  
Biological Laboratory  
1984 – 1987 Postdoctoral Research Associate, Department of Microbiology, Cornell  
University

Summary of Evaluation:

Teaching – Professor Dunlap is a dedicated and effective teacher in microbiology and microbial diversity. He teaches a large course in introductory microbiology and a capstone course in microbial diversity, and in both cases he provides a strong evolutionary focus. These courses are critical components of the Department's curriculum and of the inter-collegiate Undergraduate Microbiology Concentration Program. Student evaluations for the microbiology course are very good given the tough evaluation environment of a large, introductory, premed course. For the microbial course, student evaluations are extremely high. He has been an active mentor of undergraduate students in his laboratory, and he has been particularly active in mentoring postdoctoral fellows.

Research – Professor Dunlap is a highly rigorous and thoughtful scientist who is internationally respected in his field. His research on bacteria in the family *Vibrionaceae* is noted for its wide-ranging focus that has led to many key and broadly relevant findings. He also curates the Microbial Genomic Diversity Research Collection which is a permanent, living resource available for a wide range of research on *Vibrionaceae* bacteria. This remarkable collection is a singular resource of enormous importance. With his breadth, expertise, and international standing, he adds significantly to the overall strong reputation of microbial biology at Michigan.

Recent and Significant Publications:

“Phylogenetic analysis of the incidence of *lux* gene horizontal transfer in *Vibrionaceae*,” with H. Urbanczyk, et al., *Journal of Bacteriology*, 190, 2008, pp. 3494-3504.

*Brock Biology of Microorganisms*, 12<sup>th</sup> edition, with M. T. Madigan, et al., Benjamin Cummings, 2008.

“Phylogenetic analysis of host-symbiont specificity and codivergence in bioluminescent symbioses,” with J. C. Ast, et al., *Cladistics*, 23, 2007, pp. 507-523.

“Natural merodiploidy of the *lux-rib* operon of *Photobacterium leiognathi* from coastal waters of Honshu, Japan,” with J. C. Ast and H. Urbanczyk, *Journal of Bacteriology*, 189, 2007, pp. 6148-6158.

Service – Professor Dunlap has provided noteworthy service to the Department and to the research community. Since promotion to tenure he has served on the Graduate Admissions Committee, the Nominating Committee, the Energy Committee, a faculty search committee, and has been the Department’s Space and Facilities Coordinator. He also has served on the Associate Provost’s Working Group on the Undergraduate Microbiology Concentration Program. Nationally he has served on several National Science Foundation Advisory Panels and has reviewed articles for a number of journals in his field.

External Reviews:

Reviewer (A)

“There is no doubt that Paul is one of the leading spirits in his field, a biologist on a broad basis developing science at a top intellectual level, and a dedicated teacher of unusual skills, who undoubtedly deserves the rank of a professor at any top rank university.”

Reviewer (B)

“...[Dunlap] has published several book chapters and review articles and is co-author of *Brock Biology of Microorganisms* (2008) which is one of the best and most widely used text books in university teaching of microbiology. ...[he] has a very strong profile spanning the areas of microbial ecology, physiology and microbial genetics. ...the impact of the work is impressive.”

Reviewer (C)

“...he has done heroic service to the world community by creating and maintaining a huge collection of *Vibrio* strains, which now includes four strains collected 80 years ago... Curiously, these strains define a new species, of which there are members that can be found today all over the world. Sequence comparisons here indicate that bacterial evolution proceeds by the gradual accumulation of nucleotide changes, for some a radical view.”

Reviewer (D)

“His work explores an area and an approach not previously covered and promises to add to our understanding of the broader aspects of symbiosis and light emission. Paul is an accomplished scholar in an area of basic and important biology and merits recognition and promotion to the rank of Professor.”

Reviewer (E)

"...Dunlap challenges the frequently assumed scenario of steadily gene-exchanging and rapidly evolving bacterial genotypes in habitats. With this and other recent work Paul Dunlap clearly established his very own, original area of research in the field of bacterial evolution and speciation."

Reviewer (F)

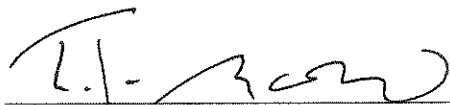
"I am particularly struck by the studies...in which he has convincingly refuted the seductive hypothesis of co-evolution of host and bacterial symbionts, using fish models. These papers required a knowledge of fish evolution and relationships as well as bacterial genetics. I consider them to be major contributions and ground-breaking work. The 2006 Cladistics paper is a tour de force... ..I would be proud to send Dr. Dunlap's file forward for promotion to Full Professor."

Reviewer (G)

"Dr. Dunlap has been a productive scientist... He has maintained steady funding from the NSF or DARPA since 1991 over the course of five separate proposals. Over the past ten years [he] has published ~19 papers in peer-reviewed research journals... His work has been cited by others, he has been asked to serve on grant panels and has been solicited as an expert reviewer for manuscripts. By the standards of just about every research institution, that is what we expect for successful faculty members..."

Summary of Recommendation:

Professor Dunlap is one of the most prominent researchers studying marine microbial ecology and evolution. He is an excellent teacher and mentor, and has performed valuable service in his Department and in the discipline. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Associate Professor Paul V. Dunlap be promoted to the rank of professor of ecology and evolutionary biology, with tenure, in the College of Literature, Science, and the Arts.



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

May 2009