Josef C Uyeda

CURRICULUM VITAE

Institute for Bioinformatics and Evolutionary Studies
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Academic employment

2012-	Postdoctoral Fellow. University of Idaho, Moscow, Idaho Institute for Bioinformatics and Evolutionary Studies (IBEST) Supervisor: Prof. Luke J. Harmon	

Education

2006-2012	Ph.D. in Evolutionary Biology. Advisor: Prof. Stevan J Arnold	Oregon State University, Corvallis, OR
2002-2006	B.A. with honors, *summa cum laude* Major: Biology Minor: Chemistry	Willamette University, Salem, OR

Publications

Pennell, MW, Eastman, JM, Slater, GJ, Brown, JW, **Uyeda, JC,** Fitzjohn, RG, Alfaro, ME and LJ Harmon. 2014. geiger v2.0: an expanded suite of methods for fitting macroevolutionary models to phylogenetic trees. *Bioinformatics*, doi:10.1093/bioinformatics/btu181.

Pennell, MW, Harmon, LJ and **JC Uyeda.** 2014. Speciation is unlikely to drive divergence rates. *Trends in Ecology and Evolution,* 29(2):72-3.

Pennell, MW, Harmon, LJ and **JC Uyeda.** 2013. Is there room for punctuated equilibrium in macroevolution? *Trends in Ecology and Evolution,* 29(1):23-32.

Jones, AG, Bürger, R, Arnold, SJ, Hohenlohe, PA and **JC Uyeda.** 2012. The effects of stochastic and episodic movement of the optimum on the evolution of the G-matrix and the response of the mean to selection. *Journal of Evolutionary Biology,* 25(11):2210-2231.

Eddy, SL, Kiemnec-Tyburczy, KM, **Uyeda, JC** and LD Houck. 2012. The influence of sequential male courtship behaviors on courtship success and duration in a terrestrial salamander, *Plethodon shermani*. *Ethology*, 118(12):1240-1250.

Uyeda, JC, Hansen TF, Arnold SJ and J Pienaar. 2011. The million-year wait for macroevolutionary bursts. *Proceedings of the National Academy of Sciences,* 108(38):15908-15913.

Westphal, MF, Morey, SR, **Uyeda, JC,** and Morgan, TJ. 2011. Molecular phylogeny of the subfamily Amphistichinae (Teleostei: Embiotocidae) reveals a convergent loss of red pigmentation in two rapidly evolving lineages of sand-dwelling surfperch. *Journal of Fish Biology* 79:313-330.

Uyeda, JC, Arnold, SJ, Hohenlohe, PA, and LS Mead. 2009. Drift promotes speciation by sexual selection. *Evolution* 63(3):583-594.

Uyeda, JC, Drewes, RC, and BM Zimkus. 2007. The California Academy of Sciences Gulf of Guinea Expeditions (2001, 2006) VI. A new species of *Phrynobatrachus* from the Gulf of Guinea islands and a reanalysis of *Phrynobatrachus dispar* and *P. feae* (Anura: Phrynobatrachidae). Proceedings of the California Academy of Sciences, 58(18):367-385.

Uyeda, JC, and SR Kephart. 2007. Detecting species boundaries and hybridization in *Camassia quamash* and *C. leichtlinii* (Agavaceae) using allozymes. *Systematic Botany*, 31(4):642-655.

Grants and Fellowships

2011	Outreach Grant (Co-PI S. Eddy, $800)
	Society for the Study of Evolution
2011	Outreach Grant (Co-PI S. Eddy, $800)
	Precollege Programs, Oregon State University
2010	Doctoral Dissertation Improvement Grant ($14,961, Co-PI S.J. Arnold)
	National Science Foundation (Award No. 1011352)
	"Determining the effects of hybridization on the evolvability of phenotypic traits using genomic markers"
2010	Outreach Grant ($1000; Co-PI S. Eddy)
	Precollege Programs, Oregon State University
	"Darwin's Legacy Workshop"
2009	Nordic research supplement (~$20,000; Co-Sponsors T.F. Hansen and T. Schweder)
	NSF/ Research Council of Norway (Project No. 194945/V11)
	"Modeling the Tempo and Mode of Phenotypic Evolution"
2009	Zoology Research Fund ($500)
	Oregon State University
2007	Predoctoral Fellowship ($130,500)
	National Science Foundation (July 2007-July 2010)

Teaching Experience

2011	Lecturer, Oregon State University, Biology 445/545 (Evolution)
2011, 2012	Lecturer, Oregon State University, Biology 211 (Principles of Biology- Summer Term)
2011, 2013	Teaching Assistant & Invited Lecturer, National Evolutionary Synthesis Center (Evolutionary Quantitative Genetics Workshop with SJ Arnold & J Felsenstein)
2010-2011	Teaching Assistant, Oregon State University, Biology 211, 212 & 213
2006-2007	Teaching Assistant, Oregon State University, Biology 211, 212 & 213
2009-2012	Undergraduate Research Mentor, Oregon State University, Zoology 401
2013	Invited Lecturer, University of Idaho, Biology 489 (Herpetology)
2012	Invited Lecturer, Oregon State University, Biology 445 (Evolution)
2009	Invited Lecturer, Oregon State University, Biology 370 (Ecology)
2006	Teaching Assistant, Willamette University, Biology 352 (Plant Sys & Evol)
2005	Teaching Assistant, Willamette University, Biology 355 (Field Zoology)
2004-2005	Teaching Assistant, Willamette University, Biology 125 (Ecology, Evol & Diversity)

Academic Fellowship Positions

2009	NSF Nordic Research Fellow, University of Oslo
2007-2010	NSF Predoctoral Research Fellow, Oregon State University

Professional Service

Reviewer	*Evolution, The American Naturalist*, *Molecular Ecology*, *Systematic Biology, Methods in Ecology and Evolution*

University Service

2010- 2012	Co-Founder of BIO-GradS (Broader Impacts and Outreach by Graduate Students)
2008-2012	College of Science R group leader

Community Outreach

October 24, 2011	"Evolution and Ecology Workshop", Corvallis, OR (80 students, 4 teachers)
July 22, 2011	"GEAR UP" Latino student outreach panel, Corvallis, OR (30 students)
December 2, 2010	"Discovery Nights" -Wilson Elementary School, Corvallis, OR (50 students)
November 10, 2010	Philomath High School presentation, Philomath, OR (30 students)
September 20, 2010	"Darwin's Legacy Workshop", OSU (65 students, 7 teachers)
July 2, 2010	Evolution Teacher workshop, OSU (14 high school teachers)
May 18, 2010	West Albany High School visit to OSU (35 students)
April 15, 2010	Illinois Valley High School visit to OSU (35 students)
March 7, 2009	Science Potpourri, OSU (20 students)
January 22, 2009	Mountain View Elementary School, Corvallis, OR (23 students)
2007-2011	Myers Elementary, Salem, OR (annual visits, 300 students)
2007 & 2008	SMILE tours, OSU (3 tours to middle school classes)
2007-2009	Avery House Volunteer, Corvallis, OR (3 events, 60 participants)

Professional Seminars/Talks

April 2014	EVO-WIBO, Port Townsend, WA. *Bayesian modeling of adaptive evolution on phylogenies.*
August 2013	Evolutionary Quantitative Genetics, NESCENT, Durham, NC. *From micro- to macroevolution: Waiting for evolutionary bursts* (invited lecture) http://academy.nescent.org/wiki/EQG_Lecture_6.1:_Testing_stochastic_models_with_microevolutionary,_time-series_and_phylogenetic_data
July 2013	Evolution 2013, Snowbird, UT. *Better interpretation of patterns of trait evolution using a novel reversible-jump method of detecting adaptive regimes from phylogenetic comparative data* (contributed talk)
July 2012	Evolution 2012, Ottawa, ON. *A classic example of stasis? Macroevolutionary patterns of body temperature evolution in mammals* (poster, co-authors TF Hansen, G. Bloom and J Pienaar)
March 2012	Invited Lecture, Willamette University, Salem, OR. *The Evolutionary Blunderbuss: Connecting micro and macroevolution*
August 2011	Evolutionary Quantitative Genetics, NESCENT, Durham, NC. *From micro- to macroevolution* (invited lecture) http://academy.nescent.org/wiki/EQG_Lecture_6.1:_Testing_stochastic_models_with_microevolutionary,_time-series_and_phylogenetic_data
July 2011	Evolution 2011, Norman, OK. *How can evolutionary process models simultaneously explain micro- and macroevolutionary patterns? And How to study big evolutionary divergence databases* (contributed talk, co-authors TF Hansen, SJ Arnold and J Pienaar)

July 2010	Evolution 2010, Portland, OR. *The Elephant in the Dark: Resolving Evolutionary patterns across timescales* (contributed talk, co-authors TF Hansen, SJ Arnold and J Pienaar)
April 2010	EVO-WIBO, Port Townsend, WA. (Poster- Top Poster Award)
Sept 2009	CEES annual conference, Holmen Fjordhotell, Norway. (contributed talk)
July 2009	Joint Meetings of Ichthyology and Herpetology, Portland, OR. (Poster)
June 2009	Evolution 2009, Moscow, ID. (Poster)
June 2008	Evolution 2008, Minneapolis, MN. *Speciation by drift in female mating preferences* (contributed talk, co-authors SJ Arnold, PA Hohenlohe and LS Mead)
April 2008	EVO-WIBO, Port Townsend, WA. (contributed talk, co-authors SJ Arnold, PA Hohenlohe and LS Mead)

Synergistic Activities

(1) I have twice worked as the teaching assistant for Joe Felsenstein and Stevan J Arnold's NESCENT course on Evolutionary Quantitative Genetics in Durham, NC. My tasks included assisting in the development and implementation of computational exercises and giving a lecture on the connection between microevolutionary and macroevolutionary patterns. The course spanned topics from quantitative genetics to comparative methods. https://academy.nescent.org/wiki/Evolutionary_quantitative_genetics

(2) I co-founded a cross-departmental graduate student outreach organization at OSU called BIO-GradS (Broader Impacts and Outreach by GRADuate Students). As co-PI, I have obtained 3 outreach grants totaling $2600 (Society for the Study of Evolution and Precollege Programs, OSU) and conducted two workshops for rural and underserved high schools in Oregon as well as a graduate level seminar on developing outreach (>15 separate events, >700 students and >40 teachers). I have focused on the development of modules to teach evolutionary quantitative genetics and/or molecular phylogenetics.

(3) In the Fall of 2009, I studied at the University of Oslo in Norway, sponsored by a joint research grant from the NSF and the Research Council of Norway. I collaborated with two PI's while there, and participated in a CEES annual conference. My time there has resulted in the recent publication of a paper in *PNAS*, Uyeda et al. 2011, and ongoing collaborations with CEES researchers Prof. T. Hansen, Prof. T. Schweder & Dr. T. Reitan).

(4) I taught three courses at Oregon State University as instructor, Biology 211 (twice) and Evolution 445/545. I developed my own lectures, activities and exams for these courses. In addition, I have taken 3 terms of teaching seminars at OSU to improve my teaching and mentoring abilities. A bioinformatics laboratory I developed has been implemented into the laboratory for Biology 213 at Oregon State University. This course reaches approximately1000 students every year.

(5) I am collaborating on the Arbor project as part of the Assembling, Visualizing and Analyzing the Tree of Life (AVAToL) program (http://www.arborworkflows.com/). Together with a team of software developers and biologists, our goal is to provide an extensible and scalable platform for analyzing and visualizing phylogenetic comparative data. My duties include incorporating and developing novel comparative methods for implementation in the Arbor software, collaborating with researchers analyzing phylogenetic comparative data across the AVAToL project, and working with software developers to develop flexible and extensible tools for biologists interested in using or developing comparative methods.