Conspiracies with Steve Arnold

Joe Felsenstein

Arnoldfest, Corvallis, OR, 27 July 2019

Beginnings at NESCENT, 2011-2013

Allen Rodrigo
(NESCENT director)

NESCent transitions to TriCEM June 2015.
This site is maintained for reference only.
NESCent
National Evolutionary Synthesis Center

(NESCENT funded by)

3 years at NIMBioS, U of Tennessee, Knoxville, 2014-2016

NIMBioS
National Institute for Mathematical and Biological Synthesis

Lou Gross (NIMBioS director)

Brian O'Meara

(NIMBioS funded by)

The instructors we have had are:

Josef Uyeda, Biological Sciences, Virginia Tech, Blacksburg	2011-2014(TA), 2015-2019
Marguerite Butler, Biology, Univ. Hawai'i, Manoa	2011-2012, 2014, 2016-2019
Brian O'Meara, Ecol. & Evol. Biol., U. of Tenn., Knoxville	2013-2019
Patrick Carter, Evolutionary Physiology, Washington State Univ.	2014-2019
Adam Jones, Biology, University of Idaho	2011-2012, 2016-2019
Patrick Phillips, Biology, University of Oregon	2012-2013, 2016, 2018-2019
Liam Revell, Biology, University of Massachusetts, Boston	2012-2015
Trudy Mackay, North Carolina State University, Raleigh, NC	2011-2013
Emilia Martins, Arizona State University, Tempe	2015, 2018
Luke Harmon, Biological Sciences, University of Idaho	2011-2012
Samantha Price, Biological Sciences, Clemson University	2019
Paul Hohenlohe, Biological Sciences, University of Idaho	2014
Tyler Hether, Biological Sciences, University of Idaho	2015 (TA)
Michael Whitlock, Zoology, Univ. British Columbia, Vancouver	2015
Jonathan Losos, OEB, Harvard University	2012
Thomas Hansen, CEES, University of Oslo, Norway	2013

Schedule, 2019

Date	*Activity*	*Instructor(s)*
Monday	Lecture 1.1: Introduction to the course & quantitative genetics	FHL, Steve Arnold, Joe Felsenstein
	Lecture 1.2: Molecular quantitative genomics	Patrick Phillips
	Lecture 1.3: Inheritance of a single trait - response to selection	Steve Arnold
	Exercise 1.1: Heritability estimation: Parent-offspring regression in R	Arnold & Uyeda
	Lecture 1.4: Multivariate inheritance; response to selection	Steve Arnold
	Exer.1.2: Multivariate inheritance: matrix algebra in R and PCP software	Phillips & Arnold
Tuesday	Lecture 2.1: Estimation of inheritance with fixed & random effects	Pat Carter
	Exercise 2.1: Using MCMCglmm in R to estimate inheritance parameters	Pat Carter
	Lecture 2.2: Selection as a surface	Steve Arnold
	Exercise 2.2: Estimating a selection surface	Arnold
	Lecture 2.3: Evolution on a surface: The adaptive landscape	Steve Arnold
	R workshop (optional)	Marguerite Butler
Wednesday	Lecture 3.1: Simulating the evolution of the G-matrix	Adam Jones
	Exercise 3.1: G-matrix stability and evolution	Jones & Arnold
	Lecture/Exercise 3.2: Brownian motion, contrasts and comparative methods	Samantha Price and Joe Felsenstei
	Lecture/Exercise 3.3: Exploring evolutionary hypotheses along trees with BM and OU models	Brian O'Meara and Marguerite Butle
Thursday	Lecture/Exercise 4.1: Long-term and short-term evolution	Josef Uyeda
	Lecture/Exercise 4.2: Morphometrics and phylogenies	Joe Felsenstein
	Lecture/Exercise 4.3: Usefulness of Brownian or OU simulation	Samantha Price
	Lecture 4.4: Accounting for sexual radiation with coevolutionary models & OUwie	Steve Arnold
	Lecture/Exercise 4.5: Measurement error, identifiability, and model adequacy	Brian O'Meara
	Lecture/Exercise 4.6: Making sense of your output: assessing confidence in model selection and parameters	Marguerite Butler
Friday	Lecture/Exercise 5.1: Phylogenetic natural history: data-driven and hypothesis testing frameworks	Josef Uyeda
	Lecture/Exercise 5.2: Applying all of this to your data	Butler, O'Meara, Price, Uyeda
	Lecture/Exercise 5.3: The threshold model	Joe Felsenstein (lecture) and Josef
	Discussion: Overview of workshop topics	All surviving lecturers and participan

Welcoming reception (more), 2019

Welcoming reception (more), 2019

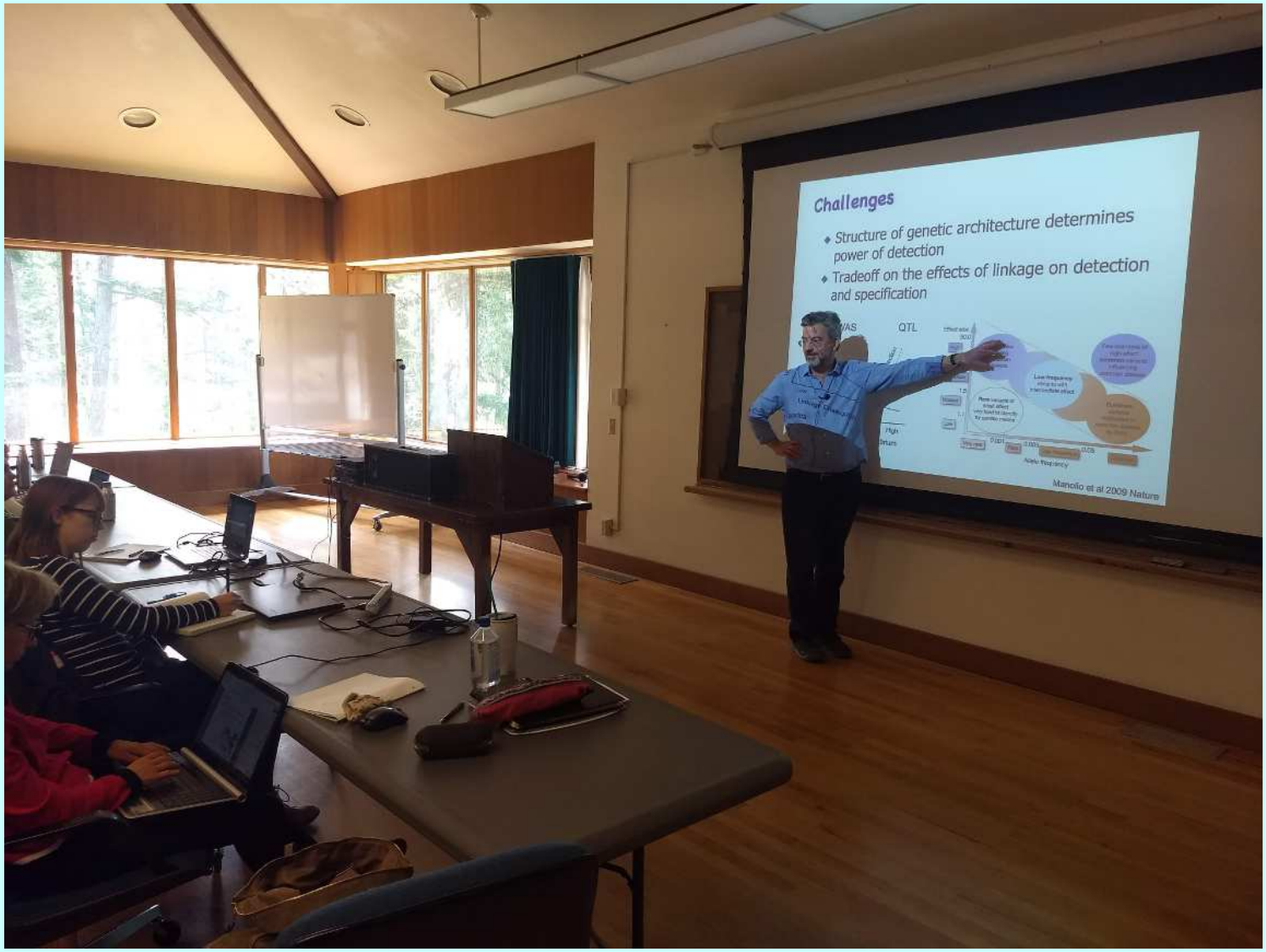
Welcoming reception (even more), 2019

Patrick Phillips and Steve Arnold at reception

Billie Swalla, FHL Director, welcomes us

Steve Arnold introduces the workshop

Patrick Phillips on genes and phenotypes



Patrick Carter on estimation with the animal model

Adam Jones on evolution of covariances

Samantha Price on Brownian Motion on trees

Marguerite Butler multiple peaks

Steve does the Phenotypic Tango

At the 2015 Tutorial at NIMBioS at the University of Tennessee, Knoxville:

Steve shows his skill

Participants in different years

2011

2014

2015

2016

2017

2018

2019

FHL waterfront with RV Centennial

Looking for marine life on pilings

Mount Baker seen beyond the FHL pump shack

Last run of the day, MV Elwha of Washington State Ferries