

Biodiversity Genomics

Workshop Agenda

24-26 FEB.
2026

Teatro Casa Blanca
Campus Santiago Gangotén - USFQ



THURSDAY 24



Lecture



Workshop

08:00 Registration

09:00 Opening Remarks

09:15 Opening Presentation: The Power of Biodiversity Genomics
C.D. Specht



10:15 Coffee Break - provided

Workshop Session 1

Phylogenomics: evolution across space and time

10:30 An introduction to phylogenomics:
from genome to phylogenetic tree
C.D. Specht



11:00 The Basics of Bioinformatics: command line commands and
resources
Gathering genomic (whole genome) data from online sources
J. Landis



12:45 Lunch - not provided

14:00 Extract loci of interest from Genomic data Preparing
sequence data for downstream analyses
J. Landis



15:15 Coffee Break - provided

15:30 Using gathered data to build a phylogeny or network analysis
C.D. Specht/J. Landis



16:30 Determining accuracy of phylogenetic results
C.D. Specht/J. Landis



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WEDNESDAY 25



Lecture



Workshop

Workshop Session 2

Population Genomics: adaptation and diversification in real time

08:30 Tools and techniques to study gene flow and adaptation -
C.D. Specht



09:10 Gathering and assembling a genome
J. Landis



10:10 Coffee Break - provided

10:30 Genome assembly and annotation
J. Landis



11:00 Generating population-level data: SNPs and SNP files
Population Clustering Analyses: PCA and Structure
J. Landis



12:45 Lunch - not provided

14:00 Investigating population processes: gene flow,
heterozygosity, and allele frequency
J. Landis



15:00 Coffee Break - provided

15:30 Investigating population processes: Isolation by distance
and GWAS
J. Landis



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THURSDAY 26



Lecture



Workshop

Workshop Session 3 Advanced Biodiversity Genomics

08:30 Biodiversity Genomics in action: the Andean lupin
M. Gordillo



09:15 Biodiversity talks



10:00 Coffee Break - provided

10:15 Setting up a study: Cacao, Sabal
C.D. Specht /J. Landis



10:45 Results and discussion: Cacao, Sabal
C.D. Specht /J. Landis



11:45 Data generation: from the field to the phylogeny
J. Landis



12:45 Lunch - not provided

14:00 Advanced analyses and visualization: phylogenomics
J. Landis



14:30 Advanced analyses and visualization: population genetics
J. Landis



16:00 Closing remarks & toast