Recent Advances in Conservation Genetics 2009

	Sunday 1/18 Bienvenidos!	Monday 1/19 Getting Started: Sampling	Tuesday 1/20 Getting Started: Genetic Markers	Wednesday 1/21 Sequence Analyses Part I	Thursday 1/22 Sequence Analyses Part II	Friday 1/23 Population Genetics More Microsatellites	Saturday 1/24 Advanced Technologies
7:00 AM		Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
7:30 AM							
8:30 AM		Panama Introduction (Local Staff)	Comparative Genomics (O'Brien)	Sequence Data, Sequencher (Roca)	Epidemic disease and phylogenetic diversity of an amphibian community (Crawford)	Population Genetics (Roca)	Microsatellites & populations, phylogenies, PCA, Structure (Johnson, Antunes)
9:00 AM							
9:30 AM			Data-Mining, NCBI, Perl (Part 1) (Pontius)				
10:00 AM		Student Session#2		Clustal X, SeqAL, MEGA (compile sequences) (Slattery)	Advanced Phylogenetics (Part 2): PAUP (Wilgenbusch)	Bustamante (I)	SNPs, theory, Inferring haplotypes, STRUCTURE/PSAT Software: Sequencher, Eigensoft-pop structure, LD Blocks (Hendrickson)
10:30 AM							
11:00 AM							
11:30 AM		Computer Labs and Basic Housekeeping Rules (Bailey)					
12:00 PM	Arrivals	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
12:30 PM							
1:00 PM		Sampling Strategies, collection, preservation (Oris Sanjur)	Primer Design (Roca)	More data mining; Perl 2 (primer design, repeat masking, etc) (Pontius/staff)	PAUP Wrap up (Wilgenbusch)	Wayne (II)	MicroArray, Sequencing technology and Demos (Hendrickson)
1:30 PM			Intro to Microsatellites (Roca)				
2:00 PM		Sample Label and Tracking (Bailey)			DNA Barcoding (Paul Hebert)	Computer Time (Johnson, Crawford)	
2:30 AM			PCR Tricks and advanced topics (David)	Basics of Phylogenetics (Slattery)			
3:00 AM		Discussions of DNA Extraction, Ancient DNA,Quantification, Quality, Storage (Luo, Sanjur, Crawford, etc.)			Other Phylogenetic programs, Intro to Bayesian Phylogenetics: Mr.Bayes, BEAST, Max Likelihood programs (Crawford)		Travel to Naos
3:30 AM			Advanced Topics/Trouble shooting Genotyper, Allelogram (David), usat toolkit	Advanced Phylogenetics (Part 1): PAUP (Wilgenbusch)		Gene Mapping (David)	
4:00 PM							Tour of Naos Marine Labs
4:30 PM		Marker Selection-Historical Perspective (Harilaos Lessios)					
5:00 PM						Perl (Part 3)	Advanced Technologies and Assays (O'Brien)
5:30 PM							
6:00 PM	Dinner	Dinner	Dinner	Dinner	Dinner	Dinner	Mid-Term Fiesta Culebra
6:30 PM							
7:00 PM							
7:30 PM	Introduction/O'Brien	Biff Birmingham	Al Roca	Paul Herbert	Robert Wayne	Carlos Bustamante	
8:00 PM	15 Student Introductions/3 min. Presentations						
8:30 PM							
9:00 PM							
9:30 PM							
10:00 PM							

Times, topics, and speakers are flexible and are be subject to some modification.

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	Sunday 1/25 Paseo al Campo	Monday 1/26 Coalescence, etc.	Tuesday 1/27 Molecular Ecology Infectious Disease	Wednesday 1/28 Analyses of Proteins	Thursday 1/29 Genetics: Bringing it all together	Friday 1/30 Genetics: Bringing it all together	Saturday 1/31 Wrapping up & Hasta Luego
7:00 AM	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
7:30 AM							
8:30 AM	**Barro Colorado Island Field Trip**	Intro to Dating Methodologies: Lintree, Divtime, etc (Eizirik)	MHC and Adaptive Evolution (Edwards)	Cat Domestication (Driscoll)	**Free Time (Suggest Hiking in Gamboa or Locks Trip)**	Ryder (I)	Evaluations & Checkout
9:00 AM							
9:30 AM						Nomenclature, hybridization, and conservation: S. A. examples (Eizirik)	
10:00 AM			Bowen (II)	Intro to Protein Analyses, Molecular Selection, sex chromosomes (Slattery)			Departures
10:30 AM		Mammal and Felid Evolution Stories (Eizirik, Johnson, Luo)					
11:00 AM			Colour pattern, single trait driving speciation in coral reef fishes? (Puebla)			Genetics, captive tigers, Wildlife Trade, Infectious Disease (Luo)	
11:30 AM							
12:00 PM		Lunch	Lunch	Lunch	Lunch	Lunch	
12:30 PM							
1:00 PM		Inferring Demographic history in a marine species after mass mortality (Lassios)	Computer Programs (Eizirik)	Selecton detection, TreeSAAP, Arlequin, MEGA, DNAsp, PAML (Slattery, Hendrickson, Eizirik)	Computer Lab: Review, Student Data Sets (Staff)	Conservation Topics & Round Table Discussion (Driscoll and student topics)	
1:30 PM							
2:00 PM		Computer Programs (Antunes, Hendrickson, Johnson)					
2:30 AM			Infectious Disease (Obrien)			Conservation Topics & Round Table Discussion(Marker)	
3:00 AM				Intro to Protein Modeling (Pontius)	Baker (II)		
3:30 AM							
4:00 PM						Practical Solutions: Examples from STRI? (Birmingham)	
4:30 PM		Computer Programs: LAMARK, IM (Eizirik)	Phylogenetics: phylodynamics to host specificity and adaptation in disease emergence (Slattery)	Data Mining 2 (Pontius)	Laurie Marker		
5:00 PM							
5:30 PM							
6:00 PM	Dinner	Dinner	Dinner	Dinner	Closing Fiesta Gamboa	Dinner	
6:30 PM							
7:00 PM							
7:30 PM	Brian Bowen	Scott Edwards	Warren Johnson	Scott Baker		Oliver Ryder	
8:00 PM							
8:30 PM							
9:00 PM							
9:30 PM							
10:00 PM							

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