

Collections-based research in the genomic era – 2-3 April 2014

Linnean Society of London www.linnean.org/genomicera

PROGRAMME

Time DAY 1

Session 1: Introduction – collections and genomics		CHAIRPERSON: Bill Baker
9h30-10h00	Welcome - Sven Buerki & Bill Baker (Royal Botanic Gardens, Kew, UK): Collections-based research in the genomic era	
10h00-10h30	Freek Bakker (University of Wageningen, Netherlands): Herbarium genomics and the promise of this-generation sequencing: the Angiosperm perspective	
10h30-11h00	Nils Arrigo (University of Lausanne, Switzerland): Just another day's work using next generation sequencing data	
11h00-11h30	TEA/COFFEE BREAK	
11h30-12h00	Bryn Dentinger & Ester Gaya (Royal Botanic Gardens, Kew, UK): Tales from the crypt: from the fungarium to phylogenomics	
Session 2: Genomics and phylogenetics		CHAIRPERSON: Elizabeth Clare
12h00-12h30	Jim Leebens-Mack (University of Georgia, USA): A Phylogenomic Prospective on Green Plant Evolution	
12h30-13h00	Stephen Rossiter (Queen Mary University of London, UK): The genetic basis of diversification in horseshoe bats - from museums to magic traits	
13h00-14h00	LUNCH BREAK	
14h00-14h30	Guillaume Besnard (University of Toulouse, France): Next-generation sequencing on ancient herbarium collections illuminates the history of a C3 grass genus of open woodlands	
14h30-15h00	Catherine Kidner (Royal Botanic Gardens, Edinburgh, UK): Working with transcriptomes to study diversity	
Session 3: Genomics and evolution		CHAIRPERSON: Elizabeth Clare
15h00-15h30	Anna Linderholm (Durham University, UK): Evolution, domestication, and civilization in Islands of South East Asia	
15h30-16h00	Ian Barnes (Natural History Museum, London, UK): Genomic Analyses of the Caribbean Mammal Fauna	
16h00-16h30	TEA/COFFEE BREAK	
16h30-17h00	David Bass (Natural History Museum, London, UK): Collections-based research in microbiology in the genomic era	
17h00-17h30	Steven Dodsworth (Queen Mary University of London, UK): Phylogenetics using repetitive DNA, genome skimming and the relevance for collections-based research	
17h30-18h00	Nadir Alvarez (University of Lausanne, Switzerland): NGS analysis of insect collection specimens: a golden mine for evolutionary biologists	
18h00-19h30	RECEPTION - Linnean Society Library	

Time DAY 2

Session 3: Genomics and evolution (continued)		CHAIRPERSON: Catherine Kidner
9h30-10h00	Tim Littlewood (Natural History Museum, London, UK): TBC	
10h00-10h30	Seirian Sumner (University of Bristol, UK): Genomic novelty and phenotypic evolution	
Session 4: Genomics, Biodiversity and Conservation		CHAIRPERSON: Catherine Kidner
10h30-11h00	François Balloux (University College London, UK): The London Centre for Conservation Genomics	
11h00-11h30	TEA/COFFEE BREAK	
11h30-12h00	Alfried Vogler (Natural History Museum, London, UK): Linking collection-based research and genomic observatories for the study of highly diverse arthropods	
12h00-12h30	Matthew Fisher (Imperial College, UK): Integrating museum collections, ancient DNA and molecular epidemiology to understanding fungal pandemics	
12h30-13h00	Michael Bunce (Curtin University, Australia): NGS Metabarcoding by amplicon sequencing; from bulk bone to herbal medicines	
13h00-14h00	LUNCH BREAK	
14h00-14h30	Pete Hollingsworth (Royal Botanic Gardens, Edinburgh, UK): DNA barcoding and collections	
14h30-15h00	Elizabeth Clare (Queen Mary University of London, UK): NGS and DNA barcoding applications	
Session 5: Bioinformatics – challenges and future prospects		CHAIRPERSON: Sven Buerki
15h00-15h30	Matteo Fumagalli (University College London, UK): Evolutionary genetics from Next-Generation Sequencing data: methods and applications	
15h30-16h00	Laura Kelly (University of Queen Mary) & Jaume Pellicer (Royal Botanic Gardens, Kew): Big data, big challenges – lessons learnt from analysing the largest genomes in plants	
16h00-16h30	TEA/COFFEE BREAK	
16h30-17h00	Daniel Henk (University of Bath, UK): Bridging the gaps: some prospects and challenges in linking ecological bioinformatics with genome bioinformatics	
17h00-17h30	Mark Blaxter (University of Edinburgh, UK): From specimen-based to genome-rich museums; first, second and third generation genomics	
17h30-17h45	Kathy Willis (Royal Botanic Gardens, Kew, UK): Final remarks	