



TiBE2011

Abstracts

5-6th

December 2011

ORGANISATION

CIBIO (Research Centre in Biodiversity and Genetic Resources, University of Porto, Portugal) and **InBio** Associate Laboratory

Campus Agrário de Vairão
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TiBE2011's Organizing Committee

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TiBE's Permanent Organizing Committee

Population Genetics, hybridisation and speciation group (PopGen)

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ABOUT

TiBE 2011: New Challenges in Conservation Genetics

TiBE, Trends in Biodiversity and Evolution, is an annual meeting organised by CIBIO, Research Centre in Biodiversity and Genetic Resources/InBio, Associate laboratory. These meetings aim to bring together senior researchers, post-graduate and graduate students in Biological Sciences, and promote a relaxing but insightful discussion about cutting edge topics on Biodiversity and Evolution. Each year a specific subject will be chosen, and recognised senior scientists will be invited to report their views, opinions and novel results. Young researchers and post-graduate students will also be invited to participate and present their recent and innovative work.

TiBE 2011 is devoted to “New Challenges in Conservation Genetics”, a discipline which has received considerable attention in recent years by evolutionary biologists, and has voraciously incorporated many technologies to speed up and increase the accuracy of conservation decision-making. It takes place at December 5 - 6th in Campus Agrário de Vairão, University of Porto, and is hosted by *ConGen-Conservation Genetics and Wildlife Management research group*, at CIBIO.

The scientific program includes four invited plenary lectures from prominent researchers, 16 oral communications (to be selected from participants) and two poster sessions covering the most up-to-date findings in this field of evolutionary biology.

We hope that the University Porto-Campus of Vairão, located in a beautiful rural area in Vila do Conde (20 km north of Porto), will provide an excellent atmosphere for such scientific forum in one of the most interesting and stimulating areas of Biology.

E-mail : tibe2011@mail.icav.up.pt

Web page: <http://www.cibio-tibe.org>

SCIENTIFIC PROGRAMME

5th DECEMBER

8.00 - 9.00	Bus transfer passing from Estalagem Brasão, Villa C Hotel and metro station to Campus Agrário de Vairão
9.00	Registration
9.30	Opening session
SESSION 1. Population Genetics and Conservation	
9.40	Plenary lecture - "Spatially explicit Approximate Bayesian Computation: lessons from owls and humans" Jérôme Goudet (Department of Ecology and Evolution, Faculté de Biologie et de Médecine, Université de Lausanne, Switzerland)
10.30	Coffee break
11.00	T1.1 Species delimitation based on population genetic parameters Catarina Pinho
11.20	T1.2 Application of the unified species concept reveals distinct lineages for disjunct endemics threatened with extinction in the <i>Brassica repanda</i> (Brassicaceae) complex Margherita Lega
11.40	T1.3 Cryptic speciation in the field vole: a multilocus approach confirms highly divergent lineages in Europe Joana Paupério
12.00	T1.4 The curious case of <i>Bradypus variegatus</i> (common sloth) microsatellites Sofia Silva
12.20	Lunch
14.30	Plenary lecture - "Very spatial indeed: some consequences of space (and time) on population genetics inference" Lounès Chikhi (CNRS, UMR 5174, Evolution et Diversité Biologique, Université Paul Sabatier, Toulouse, France & Instituto Gulbenkian de Ciência, Oeiras, Portugal)
15.20	T1.5 The role of central and marginal populations in genetic connectivity of Iberian pines Iva Kovačić

15.40	T1.6 Evolutionary conservation biology of the Mediterranean red coral Jean-Baptiste Ledoux
16.00	Coffee break
16.30	T1.7 Environmentally-driven population structure of the bluefin tuna in the Mediterranean Sea Giulia Riccioni
16.50	T1.8 Estimating the historical divergence of Iberian wolf populations Pedro Silva
17.10	T1.9 Spatial and temporal patterns of population structure of humpback whales in west coast of Africa Inês Carvalho
17.30	Poster session 1
18.30	Free buffet
21.00 - 21.30	Bus transfer from Campus Agrário de Vairão to metro station, Estalagem Brasão, and Villa C Hotel

6th DECEMBER

8.30 - 9.30	Bus transfer passing from Estalagem Brasão, Villa C Hotel and metro station to Campus Agrário de Vairão
9.40	Plenary lecture - "The interaction between genetic, environmental and epigenetic variation: effects of inbreeding" Philippine Vergeer (Radboud University Nijmegen, The Netherlands)
10.20	T1.10 Signature of a pre-human population collapse in the critically endangered Reunion Island endemic forest bird <i>Coracina newtoni</i> Jordi Salmons
11.00	Coffee break
11.20	T1.11 Phylogeography and conservation of a long-range disperser: the example of <i>Necora puber</i> Joana do Nascimento
11.40	T1.12 Tracking invasion histories in the sea using multilocus data and ABC methods Marta Pascual

12.00	T1.13 The impact of the social structure on patterns of genetic diversity: a simulation approach Bárbara Parreira
12.20	Lunch
SESSION 2. From Conservation Genetics to Conservation Genomics	
14.30	Plenary lecture - "Targeted population genomics in non-model species" Jeffrey M. Good (Department of Biological Sciences, University of Montana, USA)
15.20	T2.1 Towards "on-the-spot" analysis: Population proteomics of European hake Elena G. González
15.40	T2.2 Population structure as revealed by SNPs in the Iberian honey bee (<i>Apis mellifera iberiensis</i>) Julio César Chávez-Galarza
16.00	Coffee break
16.30	T2.3 Conservation genetics on Islands, a case study of the Canarian Egyptian vulture Rosa Agudo
16.50	T2.4 The genetic basis of <i>Drosophila</i> lifespan differences Jorge Vieira
17.10	T2.5 Conservation genetics of the Eurasian shads Stephen Sabatino
17.30	Poster session 2
18.30	Closing session
19.00 - 19.30	Bus transfer from Campus Agrário de Vairão to metro station, Estalagem Brasão, and Villa C Hotel

P2 Is there *Apis mellifera ligustica* and *A. m. carnica* introgression in *Apis mellifera iberiensis*?

Julio César Chávez-Galarza¹, J. Spencer Johnston², João Carlos Azevedo¹, Irene Muñoz³, María del Pilar de la Rúa³, John Clifton Patton⁴, Filipe José Costa⁵, Alice Pinto¹

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Several studies have grouped the *A. mellifera* subspecies into five lineages (A, M, C, O and Y). Honey bees occurring in the Iberian Peninsula are considered a particular subspecies, named *Apis mellifera iberiensis*, originated by natural hybridization among lineages A (African) and M (western European). This study seeks to identify the level of introgression of lineage C honey bees (*A. m. ligustica* and *A.m. carnica*) in Iberian honey bees potentially caused by introduction of foreign queens by carrying out a genome wide analysis using SNPs. Over 748 individuals belonging to 23 populations sampled across three Iberian transects were genotyped for 1536 SNPs. Honey bees of lineage C *A. m. ligustica* and *A. m. carnica* were used as reference populations. The level of introgression was assessed by using Bayesian clustering methods. Our results indicate that introgression of *A. m. ligustica* and *A.m. carnica* is not noticeable in all *A. m. iberiensis* populations.

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