



CONFERENCE 2017, Dublin, Ireland

ISAG-FAO Advisory Group on Animal Genetic Diversity

STANDING COMMITTEES / WORKSHOPS Information will be posted online

Organised by a standing committee	yes
Date and meeting time:	July 18, 2017, 09:00-13:30
Chair, name and contact email:	Catarina Ginja, catarinaginja@gmail.com
Agenda / programme attached:	yes
Number of participants at meeting:	approximately 100 people

Summary of the meeting including votes, decisions taken and plans for future conferences

The Workshop of the ISAG-FAO Advisory Group on Animal Genetic Diversity was held during the 36th ISAG Conference in Dublin, Ireland, in the morning of Tuesday, July 18, 09:00-13:30. The workshop was chaired by Dr. Catarina Ginja (InBIO/CIBIO, Universidade do Porto, Portugal). The program included 2 invited speakers and 10 oral communications selected among the abstracts submitted for poster presentations. The meeting was attended by approximately 100 participants. The business meeting of the ISAG-FAO Advisory Group on Animal Genetic Diversity was held in the end of the workshop to discuss the ‘challenges for FAnGr in the Era of the omics’, and counted with the presence of five members of the committee.

Committee members

Chair: Dr. Catarina Ginja (also cattle representative)
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Other members:

Dr. J. A. Lenstra (Utrecht University, cattle representative)
E mail address: j.a.lenstra@uu.nl

Dr. P. Ajmone Marsan (Università Cattolica del Sacro Cuore, Piacenza, sheep and goat representative)

E mail address: paolo.ajmone@unicatt.it

Dr. P. Boettcher (FAO, Roma, secretary)

E mail address: Paul.Boettcher@fao.org

Dr. O. Hanotte (Nottingham University, camelids and yak representative)

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Dr. J. L. Han (Chinese Academy of Agricultural Sciences, Beijing, camelids and yak representative)

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Dr. S. Kumar (National Institute of Animal Biotechnology, Hyderabad, India, water buffalo representative)

E mail address: satishk@niab.org.in

Dr. S. Weigend (Institute of Farm Animal Genetics, Mariensee, chicken representative)

E mail address: weigend@tzv.fal.de

Dr. D. Milan (Toulouse, pig representative)

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Dr. G. Cothran (Texas A&M University, horse representative) term of service (July, 2017)

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WORKSHOP REPORT

The Workshop of the ISAG-FAO Advisory Group on Animal Genetic Diversity was held during the 36th ISAG Conference in Dublin, Ireland, in the morning of Tuesday, July 18, 09:00-13:30. The workshop was chaired by Dr. Catarina Ginja (InBIO/CIBIO, Universidade do Porto, Portugal). The program included 2 invited speakers, namely Dr. Ludovic Orlando (Centre for GeoGenetics, University of Copenhagen, Natural History Museum of Denmark, and Université de Toulouse) and Dr. Paul Boettcher (FAO, Rome, Italy), as well as 10 oral communications selected among the abstracts submitted for poster presentations. The meeting was attended by approximately 100 participants. The following communications were presented:

L. Orlando (Centre for GeoGenetics, University of Copenhagen and Natural History Museum of Denmark, Université de Toulouse-France)

An ancient genomic perspective on the horse domestication process

P. Boettcher (FAO, Italy)

FAO, Animal Genetic Resources and the UN Sustainable Development Goals

Works selected among the abstracts submitted for poster presentations based on their quality and to cover a wide range of molecular markers and species from different regions of the globe:

M. Verdugo (Trinity College Dublin, Ireland)

When *taurus* met *indicus*. Exploring admixture events in ancient cattle.

C. Ginja (CIBIO-InBIO, Universidade do Porto, Portugal)

Genetic continuity of maternal lineages in Iberian cattle populations since Roman times

P. Flynn (Weatherbys DNA Laboratory and University College Dublin, Ireland)

Comparative genome-wide characterisation of five rare British Isles cattle breeds

T. Deniskova (L.K. Ernst Institute of Animal Husbandry, Russia)

Diversity of sheep breeds in Russia based on SNP analysis

- K. Daly (Smurfit Institute of Genetics, Trinity College, Ireland)
Ancient whole mitochondrial genomes and insights into the prehistory of goats
- R. A. Lawal (The University of Nottingham, UK)
Genome-wide analysis for signature of selection in domestic chicken and red jungle fowl
- S. Weigend (Friedrich-Loeffler-Institut, Institute of Farm Animal Genetics, Germany)
Genome-wide assessment of genetic diversity in the Synbreed Chicken Diversity Panel.
- B. Gutierrez-Gil (University of León, Spain)
Detection of selection signals between Merino and Churra sheep breeds
- A. Fernández (INIA, Madrid, Spain)
Distribution of polymorphisms in major and candidate genes for productive and domestication-related traits in European local pig breeds
- I. S. Yildirim (Selcuk University, Turkey)
Genetic diversity among domestic goats (*Capra hircus*) and wild goats (*Capra aegagrus*) in Turkey

Business meeting

The business meeting of the ISAG-FAO Advisory Group on Animal Genetic Diversity was held in the end of the workshop to discuss the 'Challenges for FAnGr in the Era of the omics'. Five members of the committee were present, namely: C Ginja, H. Lenstra, O. Hanotte, P. Boettcher and S. Weigend. The committee approved the request of Dr. G. Cothran to retire from this Advisory Group, as well as his suggestion to invite Dr. Jessica Petersen from University of Nebraska in the USA to replace him as the horse representative. During this meeting, the committee decided to start preparing a technical review on the 'cataloguing of farm animal genetic diversity for food and agriculture using genomics' for publication on Animal Genetics. To achieve this goal each member of the committee and species representative will contact a number of specialists to contribute to draft this review. This should result in the organization of a two-day workshop to be held in the summer of 2018 under the auspices of FAO possibly at CIBIO-Universidade do Porto, Portugal. This workshop should count with the participation of these specialists to present an overview of the state-of-the-art regarding whole-genome diversity studies in each species. This should also be a good opportunity to invite young researchers to join the ISAG-FAO Advisory Group on Animal Genetic Diversity. The committee discussed briefly the importance of collecting phenotypic information that can be used in genomic studies worldwide and for the different farm animal species. Alternative strategies for monitoring genetic diversity in FAnGr were also discussed, such as the possibility of developing specific SNP array(s) for use in genetic diversity studies (as had been suggested last year by M. Rothschild) or instead sequencing livestock genetic resources (breed/populations) as an ex-silico source of diversity information and to make this information publically available (as suggested by O. Hanotte).

COMPARISON TEST (2015-2016)

no

SIGNATURES

Chair



Digitally signed by
Catarina Ginja, PhD
Date: 2017.09.06 16:07:06
+01'00'

Catarina Ginja, PhD