

## **ISAG-FAO Advisory Group on Animal Genetic Diversity**

STANDING COMMITTEES / WORKSHO	PS Information will be posted online
Organised by a standing committee	yes
Date and meeting time:	July 29, 2014, 14:00-17:00
Chair, name and contact email:	Catarina Ginja, <u>catarinaginja@gmail.com</u>
Agenda / programme attached:	Yes
Number of participants at meeting:	90-120 (see appended list of participants)

# Summary of the meeting including votes, decisions taken and plans for future conferences (for details please see attached report)

The Workshop of the ISAG-FAO Advisory Group on Animal Genetic Diversity was held during the 34th ISAG Conference in Xi'an, China, on the afternoon of Tuesday, July 29, 14:00-17:00. The workshop was chaired by Dr. Catarina Ginja (University of Lisbon, Portugal) and also coordinated by Dr. Yinhua Huang (China Agricultural University). The program included 10 invited presentations and the meeting was attended by approximately 120 participants. In the end of the workshop, the ISAG-FAO Advisory Group on Animal Genetic Diversity convened for a business meeting.

**Committee members** (the new committee) Chair: Dr. Catarina Ginja (also cattle representative) E mail address: <u>catarinaginja@gmail.com</u>

Other members: Dr. J. A. Lenstra (Utrecht University, chairman and cattle representative until July 29, 2014) 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. G.Cothran (Texas A&M University, horse representative) E mail address: gcothran@uky.edu Dr. O. Hanotte (Nottingham University, camelids and yak representative) E mail address: olivier.hanotte@nottingham.ac.uk Dr. J.L. Han (Chinese Academy of Agricultural Sciences, Beijing, camelids and yak representative)
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#### WORKSHOP REPORT

The Workshop of the ISAG-FAO Advisory Group on Animal Genetic Diversity was held during the 34th ISAG Conference in Xi'an, China, on the afternoon of Tuesday, July 29, 14:00-17:00. The workshop was chaired by Dr. Catarina Ginja (University of Lisbon, Portugal) and also coordinated by Dr. Yinhua Huang (China Agricultural University). The program included 10 invited presentations and the meeting was attended by approximately 120 participants. Invited speaker, Dr. Anders Götherström (Stockholm University), could not attend the meeting due to health problems, thus his communication 'Gene flow and admixture in the domestication of Europe' had to be cancelled.

The following communications were presented:

C. Ginja (University of Lisbon)

Sharing of maternal lineages between aurochs and domestic cattle in the Iberian Peninsula: introgression and/or local domestication?

H. Bahbahani (University of Nottingham)

Genome-wide identification of signatures of positive selection in African admixed zebu cattle

M. Weldenegodguad (University of Eastern Finland)

Whole genome sequencing of three native cattle breeds from northernmost cattle farming regions

T. Tozaki (Laboratory of Racing Chemistry)

Whole-genome resequencing of Japanese native horses for SNP and INDEL discovery

F. Almathen (University of Nottingham)

Large scale geographic mitochondrial DNA analysis provide insights on the demographic and evolutionary history of the dromedary (Camelus dromedarius)

J. Kijas (CSIRO)

Whole genome sequencing reveals genomic signatures of selection in native bighorn sheep populations

F. Muchadeyi (Agricultural Research Council)

Linkage disequilibrium and population structure of South African indigenous goat populations using genome wide SNP data

S. Weigend (Friedrich-Loeffler-Institut)

The Synbreed Chicken Diversity Panel – a resource for fine scale diversity studies Xiaoyong Du (Huazhong Agricultural University)

Whole Transcriptome SNP Discovery and Analysis of Genetic Diversity in Five Duck (Anas platyrhynchos) Populations

Huashui Ai (Jiangxi Agricultural University)

Population-scale whole-genome sequencing reveals signatures of local adaptation in domestic pigs

These works were selected among 57 abstracts based on their quality and to cover a wide range of molecular markers and species from different regions of the globe.

#### **Business meeting**

Five members of the Advisory Group (J. A. Lenstra, G. Cothran, O. Hanotte, J.L. Han, and S. Weigend) attended the ISAG conference in China. During a short and informal business meeting immediately following the workshop, a new member was elected unanimously (5 votes), namely: Dr. Catarina Ginja, as chairperson and cattle representative.

Also, it was agreed that this workshop fulfils a useful purpose and deserves to be continued. Hans Lenstra and Catarina Ginja drafted a table to summarize recent publications and ongoing internationally coordinated projects regarding the genetic diversity of domestic animal species and of their wild relatives. The committee decided to prepare and co-author a technical review, for publication in Animal Genetics, describing the rapid changes and new challenges associated to the use of genomics and high-throughput methods to investigate the genetic diversity of domestic animal species. Dr. Olivier Hanotte highlighted the fact that the ISAG should take a step forward in providing guidelines to researchers in this field, and also join efforts to encourage the release of genomic data in public databases (e.g. NCBI, EMBL). Thought to be developed in coordination with FAO, such publication is important to guide its member countries in the adoption and use of these new tools. Invitations for contributions will be sent to key researchers and members of international genomic consortia. No other points were put forward and the meeting was closed.

**COMPARISON TEST** (2013-2014)

#### no

#### SIGNATURES

This report was revised and approved by the members of the ISAG-FAO Advisory Group on Animal Genetic Diversity.

Chair

Catanin Jongo Ginig

Catarina Ginja, PhD

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Please sign if you are attending to this workshop

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